

Development of a Coding System to Accurately Categorize the
Causes of Construction Fatalities and Serious Injuries

by

Caroline Louise Charlotte Pedersen

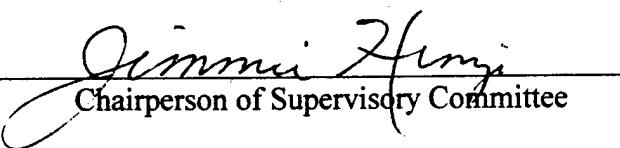
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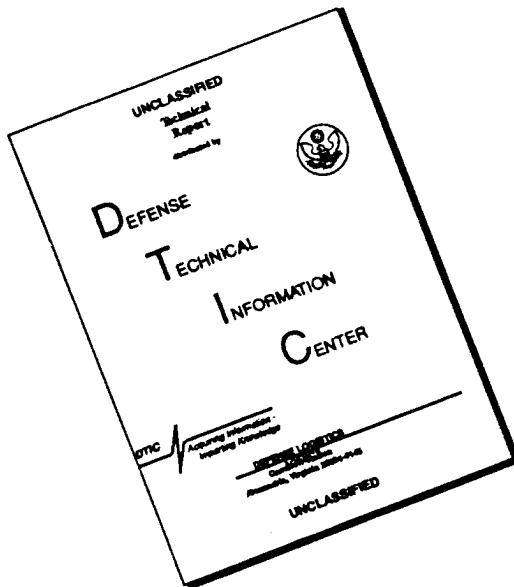
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CHAPTER 1

INTRODUCTION

There are approximately 910 construction worker fatalities in the United States each year (National Safety Council, 1995). Although construction workers constitute only 5.2% of the industrial workforce, they account for over 18.4% of the fatalities and 10.6% of the injuries (Gambatese 1996). The only industries that have higher fatality rates are mining and agriculture.

One of the functions of the Occupational Safety and Health Administration (OSHA) is to investigate and track occupational injuries and fatalities. OSHA's involvement is reduced in the state-plan states; however, these states are still encouraged to contribute such data to OSHA. This information is recorded in OSHA's Integrated Management Information System (IMIS). While various types of information are recorded, particular interest exists in the basic types of causes associated with fatalities and injuries. OSHA classifies all accidents into six event types: Falls, Struck by, Struck Against, Caught In or Between, Shock, and Other.

The accident classifications are designed to provide insight into causation. Despite this, it is felt that the current classification system has numerous shortcomings. The primary failure is that the six event types do not adequately categorize the actual accident causation. In fact, the category "other" historically has accounted for an exceptionally high percentage (about 10%) of incidents.

This thesis was undertaken to develop a system of cause codes to accurately categorize the primary causes of fatalities and related injuries in the construction industry. The information contained in the OSHA database can be extremely useful to contractors and safety professionals if it can be presented and summarized in a usable and detailed

format. If the actual causes of injury can be targeted and tracked, it is felt that the current fatality rate can be decreased significantly. Accurate information on the causes of accidents is fundamental to the success of such efforts.

CHAPTER 2

BACKGROUND

2.1 INTRODUCTION

The Williams-Steiger Act, also known as the Occupational Safety and Health Act of 1970 (OSH Act), was passed by Congress to increase safety awareness in the United States, and contained special provisions for the construction industry due to the high proportion of fatalities occurring in construction. OSHA was formed and tasked with tracking accident statistics. OSHA created the Integrated Management Information System (IMIS) database to manage the information collected on accidents. This database is primarily used by OSHA to produce statistics. Considerable amounts of useful information can be generated from the database.

Currently, six categories (Falls, Struck By, Struck Against, Caught In or Between, Shock, and Other) exist for classifying the causes of accidents in the construction industry. These categories are very general and provide limited useful data since a wide range of accidents fit into each of the areas. The category "Struck Against" is essentially unused, while approximately 10% of the fatalities have been categorized as "Other". Accident classification information would be useful for safety managers and construction professionals if the information would be specific to their actual work classification and if the cause codes clearly defined the accident type.

In addition to the coded information related to injuries and fatalities, most OSHA accident investigation reports recorded in the OSHA IMIS database contain an abstract which summarizes the events surrounding the accident. These abstracts tend to consist of a single paragraph, written in a style comfortable to the individual investigating OSHA compliance officer.

2.2 LITERATURE REVIEW

Although extensive research has been conducted on how to reduce injury and fatality rates in the construction industry, very few have reviewed the OSHA coding system to determine if it contains clear and useful data.

Only a handful of literature sources were located which reference the OSHA coding system. The first of these was an "Analysis of Fatalities Recorded by OSHA" (Hinze and Russell 1995). In this paper, the authors used OSHA's IMIS to examine the causes of past injuries. It was felt that knowledge of past injury causation would help in preventing future injuries. The researchers used data from 1980, 1985, and 1990 to identify possible trends. While some trends were identified, the authors noted that the coding of event types appeared to be inconsistent and then provided numerous example cases. In their recommendations, they stated that the information contained in the database can only be helpful if it is clearly and consistently entered into the system. They further recommended that the coding system be examined to determine if a different coding system would be more appropriate. They felt that more accurately defined codes might allow for more consistency in the information entered into the database. This would make the resulting information more usable.

Several theses have identified the need for a revised coding system. In her thesis entitled "Investigation of Equipment Related Injuries and Fatalities in Construction", Bernadine I. Thomson (1996) recommended that the abstracts in the OSHA IMIS database be more clearly written and that the coding be more precise as to the primary cause of the accident.

David C. Bren (1995) analyzed construction fatalities and injuries due to powerline contacts in his thesis and recommended that more detail be included in the abstracts, as well as accuracy in data entry. He also noted the lack of accurate coding as a fault of the current system.

Katherine Bren (1996) completed her thesis on construction fatalities and injuries due to trench cave-ins. She strongly recommended a coding system which accurately reflects the primary cause of the accident. She found that "cave-ins" were placed in either "struck by", "caught in/between", or "falls" with no real consistency. She also recommended that the abstracts be more carefully written to eliminate the grammar and logic errors which were found in many abstracts. She felt that a standard form might eliminate some of the ambiguity the OSHA database currently contains as to the actual facts of each accident.

The final reference was a report prepared by OSHA (U.S. Department 1990). OSHA analyzed the causes of construction fatalities from 1985-1989 and made conclusions about the causes of fatalities in the construction industry (see Table 2.1).

Table 2.1 Construction Fatalities Investigated by OSHA from 1985-1989*

Source of fatality (1)	Percentage of all fatalities (%) (2)
Falls	33
Electrical Shock	17
Struck by	22
Caught in/between	18
Other	10

*From "Analysis of construction fatalities- the OSHA database 1985-1989", (U.S. Department 1990).

It is clear from Table 2.1 that the current coding system is extremely broad in nature since each code covers a wide range of accidents. For example, the code "Struck By" includes accidents involving equipment, handling of material, falling material, and cave-ins. The "Caught In/Between" classification includes numerous accidents involving equipment, material, cave-ins, and others. It becomes a "judgment call" for the investigating officer to place the accident into one of the event types. Additionally, the data is in such broad categories that it is of limited utility to the construction professional.

Most of the references listed above recommended four common items: 1) all states should be required to report their accident data to OSHA; 2) abstracts should be more clearly written; 3) data entry should be performed with more attention to detail; and 4) the coding system should be specific in nature. The goal of this thesis was to focus on the coding deficiencies and develop a new coding system to accurately classify the causes of fatalities and related injuries in the construction industry.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The goal of this research was to develop a revised coding system to accurately categorize the causes of accidents and fatalities in the construction industry. The research was conducted in four stages: data acquisition from OSHA's IMIS, development of a new coding system, data compilation for the new codes, and data analysis. The development of the new coding system evolved into its final form during the data compilation stage and therefore, these two sections will be presented together.

3.2 DATA COLLECTION

OSHA maintains a database of fatalities and injuries occurring throughout the United States in various industries. The database used for this study was OSHA's IMIS which contains accident information on all industries. The database can present or sort various types of information. The data contains encoded information of various types, including victim age, craft, type of injury, amount of fine, amount of fine actually paid, etc. In addition, the database contains an abstract which is a narrative description of how the accident is presumed to have occurred. OSHA's Region 10 office isolated and sorted the data for all fatalities in standard industrial classification (SIC) codes 15, 16, and 17 (construction industry) for years 1994 and 1995. The data report included data from January, 1994 through December, 1995. The data provided by Region 10 included 894 pages of information which resulted in 954 incidents over the two year period. The following information was provided in the OSHA reports: location, date, SIC, type of citation, abatement status, amount of penalty, abstract of the incident, age and sex of the victim, event type, extent of injury, environmental factor, human factor, and hazardous factor. In addition, the database contained information of the violations, penalties and correctional actions required of the employer.

3.3 DEVELOPMENT OF THE NEW CODING SYSTEM AND DATA COMPILATION

The current OSHA construction injury event types include the following: (1) Falls; (2) Struck By; (3) Struck Against; (4) Caught In/Between; (5) Shock; and (6) Other. Since these codes were assumed to not adequately describe the various causes of injury and death, modifications were sought. Using the six OSHA categories as a baseline, refinements were made. The initial revised coding system was developed as shown in Table 3.1.

Table 3.1 Event Types- Version 1

Cave-in	Confined Space
Drowning	Heavy/Earth Moving Equipment
Electrocution- OH power lines Faulty Tools/Cords Other	Falls- Temporary Structures Permanent Structures Other
Lockout/Tagout- Electrocution Mechanical Other	Material Handling Equipment- Surface Equipment Manual (Equipment not Responsible) Cranes/OH Equipment

Using these revised codes, the 1994 data began to be evaluated and the cause of death was described by assigning the new code categories to the fatality cause. After reviewing 30 cases, it was found that the codes in Table 3.1 did not adequately describe the causes of death for all cases. As a result, the checklist shown in Table 3.2 was developed. This checklist, as it evolved, contained 15 cause codes that could be viewed as primary, with additional information providing extra details that would further describe the circumstances at the time of the accident. This checklist was used to categorize the first 120 cases. A Microsoft Access database was used to contain the data generated for each case number.

Most information used to assign the proper cause codes was contained in the case abstracts. Unfortunately, some of the abstracts were so poorly written that the facts of the accident could not be deciphered from the text. In other instances, the abstract would be repeated verbatim for two different companies and incidents. These duplicated cases were discarded from the database.

Table 3.2 Checklist- Version 2

Event Types- Check one of the following:		
<input type="checkbox"/> Asphyxiation (toxic gases)	<input type="checkbox"/> Drowning	
<input type="checkbox"/> Caught in/between Equipment	<input type="checkbox"/> Caught in/between Material	
<input type="checkbox"/> Cave-in (excavation/tunneling)	<input type="checkbox"/> Cave-in (trench)	
<input type="checkbox"/> Electrocution (faulty existing wiring)	<input type="checkbox"/> Electrocution (power lines)	
<input type="checkbox"/> Electrocution (faulty const. tool/wiring)	<input type="checkbox"/> Other	
<input type="checkbox"/> Fall from elevation	<input type="checkbox"/> Fall from ground level	
<input type="checkbox"/> Struck by equipment	<input type="checkbox"/> Struck by falling Materials	
<input type="checkbox"/> Struck by material		
Respond to all of the following:		
Lockout/Tagout?	yes	no
Confined Space?	yes	no
Cause involved other crew members?	yes	no
Type of large equipment involved? (equip w/ a driver- scraper, dozer, etc)		
Type of tools or small equip.involved? (hammer, wrench, hand compactor, saw, etc)		
Number of workers injured and/or killed?		
Type of materials involved?		
Type of materials handling?	____ hoisting/lowering ____ moving laterally ____ altering	
Temporary structure involved?		
Permanent structure involved?		
Type of project?	____ new construction ____ repair ____ renovation ____ unknown	

After the first 120 cases had been encoded, "Explosion/Fire" and "Natural Causes" were added as event types. The secondary category "Other crew members involved" changed to "others involved". Further evaluation was conducted using the added cause code categories. At case number 185, three other secondary sections were added- "Fall height/Trench Depth", "Fall Protection/Shoring/Personal Protective Equipment (PPE) used", and "Caused by the subject". The last major changes to the checklist were made at case number 400. Under event types, an "Electrocution-Other" category was added for cases which were clearly electrocutions but did not fall into one of the other electrocution sections, and "Electrocution-building power" was added for those accidents which involved a building power system which was functioning properly. Secondary sections were also added: age and sex of the subject, SIC, number of workers injured separated from number of workers killed, natural factors such as weather, vehicle type (project vehicle or privately owned vehicle), and type of work performed by the subject at the time of the accident. A comments category was added for those cases where supplemental information was required to explain how the subject was killed or injured. The final checklist is shown in Chapter 4.

The resulting database contained 954 records which included 976 fatalities and 106 related injuries.

3.4 DATA ANALYSIS

The data from the Microsoft Access database was exported to Microsoft Excel for analysis. The data was examined to determine how the fatalities were distributed among the 19 cause codes. In addition, the revised coding system was checked or validated. This was done by first selecting (at random) thirty cases from the OSHA database. The information from these cases was given to two graduate students at the University of Washington who had no knowledge of either the current OSHA system or the revised system. The objective of having graduate students use the codes served as a means of

validating the revised cause codes. Each student was asked to classify the causes of OSHA fatalities by using the revised coding system. Instructions for the checklist were provided as shown in Appendix A. The following chapter summarizes the findings of both the data analysis and audit.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

The current OSHA coding system consists of six event types. This research was undertaken to develop a new coding system with more specific categories to more accurately classify the causes of accidents and fatalities in construction. The new coding system will be presented, followed by the findings from using this new coding system on OSHA's data for 1994-1995.

4.2 NEW CODING SYSTEM

The final version of the revised coding system consisted of a checklist of causes as shown in Table 4.1. There are nineteen primary causation factors which are used for classifying the event type which caused the accident. In addition, secondary causation and related factors are included to provide additional information surrounding the accident. These include information such as sex and age of the victim, the type of project, etc..

Table 4.1 Checklist, Final Version

Primary Event Types- Check one of the following:	
<input type="checkbox"/> Asphyxiation (toxic gases)	<input type="checkbox"/> Drowning
<input type="checkbox"/> Caught in/between Equipment	<input type="checkbox"/> Caught in/between Material
<input type="checkbox"/> Cave-in (excavation/tunneling)	<input type="checkbox"/> Cave-in (trench)
<input type="checkbox"/> Electrocution (faulty existing wiring)	<input type="checkbox"/> Electrocution (power lines)
<input type="checkbox"/> Electrocution (other)	<input type="checkbox"/> Electrocution (faulty const. tool/wiring)
<input type="checkbox"/> Electrocution (building power)	<input type="checkbox"/> Explosion/Fire
<input type="checkbox"/> Fall from elevation	<input type="checkbox"/> Fall from ground level
<input type="checkbox"/> Struck by equipment	<input type="checkbox"/> Struck by falling Materials
<input type="checkbox"/> Struck by material	<input type="checkbox"/> Other
<input type="checkbox"/> Natural Causes	
Secondary Information- Respond to all of the following:	
Lockout/Tagout? <u>yes</u> <u>no</u> <u>na</u>	Confined Space? <u>yes</u> <u>no</u> <u>na</u>
Fall height: _____ (feet)	Fall protection used? <u>yes</u> <u>no</u> <u>na</u>
Personal Protective Equipment used? <u>yes</u> <u>no</u> <u>na</u>	Trench shoring used? <u>yes</u> <u>no</u> <u>na</u>
Trench Length: _____ (feet)	Trench Depth: _____ (feet)
Others involved? <u>yes</u> <u>no</u> <u>unknown</u>	Caused by the subject? <u>yes</u> <u>no</u> <u>unknown</u>
Type of large equipment involved? _____ (equip w/ a driver- scraper, dozer, etc)	Type of tools or small equip.involved? _____ (hammer, wrench, hand compactor, etc)
Vehicle Type: <u>project</u> <u>private</u> <u>na</u>	Number of workers killed?
Number of workers injured? _____	Natural factors: _____ (wind, rain, lightning, heat, etc)
Time of accident: _____ AM/PM	Sex of subject: _____
Age of subject: _____	Type of materials involved? _____
Type of materials handling? <u>hoist/lower</u> <u>lateral</u> <u>altering</u>	Type of Project: <u>new construction</u> <u>repair</u> <u>renovation</u> <u>unknown</u>
Temporary structure involved?	Permanent structure involved: _____
Work Type: _____ (painter, electrician, etc)	SIC: _____
Comments:	(if none, so state)

Table 4.2 demonstrates how the original six event types relate to the new primary event types. As is shown, the new system contains nineteen event types and provides more specific codes for the actual accident. Electrical Shock translates into five different electrocution event types (building power, faulty construction tool/wiring, faulty existing wiring, power lines, and other). Falls divide into Falls from Elevation and Falls from Ground Level. The Struck by event type now consists of Struck by Equipment, Falling Material, and Material, while Caught in/between contains Caught in/between Equipment and Material. A completely new cause code was created, Cave-ins, which contains incidents which used to fall under either Struck by or Caught in/between. The event type Other shows the most diversity since it now contains miscellaneous codes such as Asphyxiation, Drowning, Explosion/Fire, Natural Causes, and Other. The event type Struck Against is never used by OSHA and has been included in the codes Struck by and Caught in/between.

Table 4.2 Relationship Between Original Event Types and New Coding System

Original system	New system
Electrical Shock	Electrocution (building power) Electrocution (faulty const. tools/wiring) Electrocution (faulty existing wiring) Electrocution (power lines) Electrocution (other)
Falls	Falls from elevation Falls from ground level
Caught in/between	Caught in/between Equipment Caught in/between Material Cave-in (Excavation/Tunneling) Cave-in (Trench) (* Cave-ins may have also been coded as a Struck by Incident)
Struck by	Struck by Equipment Struck by Falling Material Struck by Material
Struck Against	Contained in above category
Other	Miscellaneous: Asphyxiation Drowning Explosion/Fire Natural Causes Other

4.3 FINDINGS USING THE NEW CODING SYSTEM- PRIMARY EVENT TYPES

With the use of the new coding system, the 1994-1995 data was analyzed by determining the primary causes of construction worker fatalities. The analysis was conducted independently for the 1994 data and the 1995 data. There were 691 fatalities and related injuries in 1994, and 391 in 1995.

Figure 4.1 depicts the results of using the new coding system on the data from 1994. Note that the causation factors have been consolidated into broader groupings for comparison with earlier data. The majority of the fatalities and related injuries were in the event type "Falls" (33%), followed by Electrocutions (18%), Struck by (18%), Miscellaneous (15%), Caught in/between (10%), and finally, Cave-ins (6%).

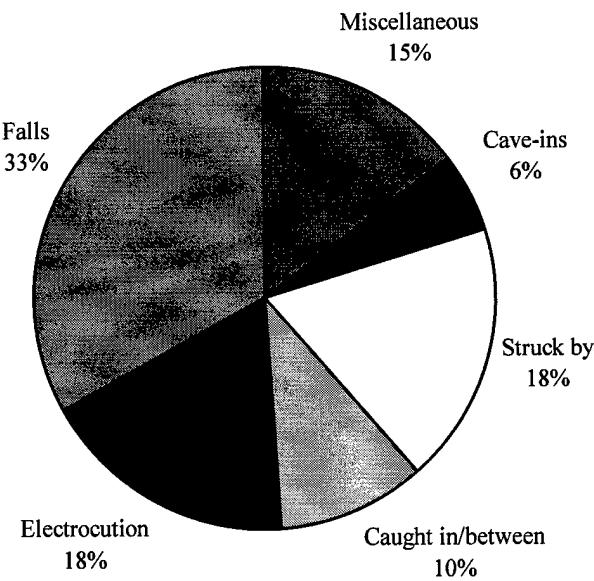


Figure 4.1 Construction Fatalities and Related Injuries, 1994

Figure 4.2 shows the results of using the revised coding system on the 1995 data. The percentages changed slightly, with Falls increasing to 35%, Electrocutions up to 23%, and Struck by incidents at 19%. Caught in/between remained constant at 10%, while Miscellaneous dropped to 9%, and Cave-ins fell to 4%.

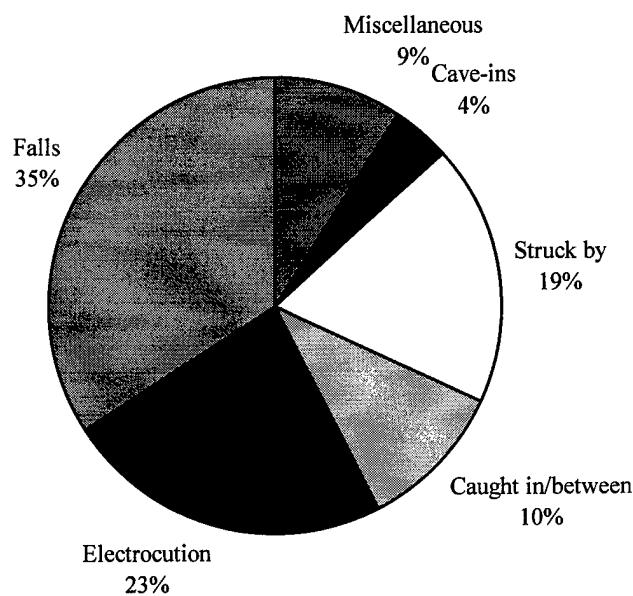


Figure 4.2 Construction Fatalities and Related Injuries, 1995

The total results for 1994-1995 in Figure 4.3 can be compared to the OSHA findings from 1985-1989 as shown in Figure 4.4. The percentage of accidents attributable to the event type "Falls" is slightly higher in this study when compared to the 1985-1989 analysis (34% vs 33%) as is "Electrocutions" (20% vs 17%). The event types Struck by, Caught in/between, and Other are lower (18% vs 20%, and 10% vs 20%, 1% vs 10%, respectively). These reductions can be assumed to be the result of using the new coding system. By expanding the primary event types from six to nineteen, the actual causation can be more accurately pinpointed. As a result, the new categories removed some of the accidents from the Struck by, Caught in/between, and Other categories and placed them in one of the Miscellaneous or Cave-in categories.

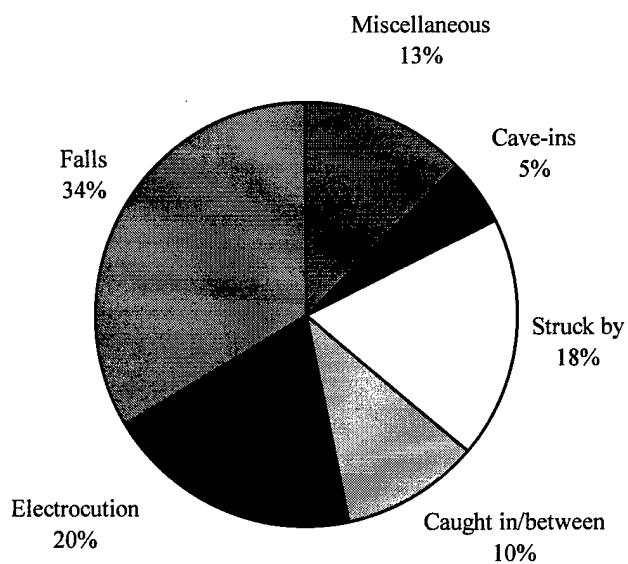


Figure 4.3 Total Construction Fatalities and Related Injuries, 1994-1995

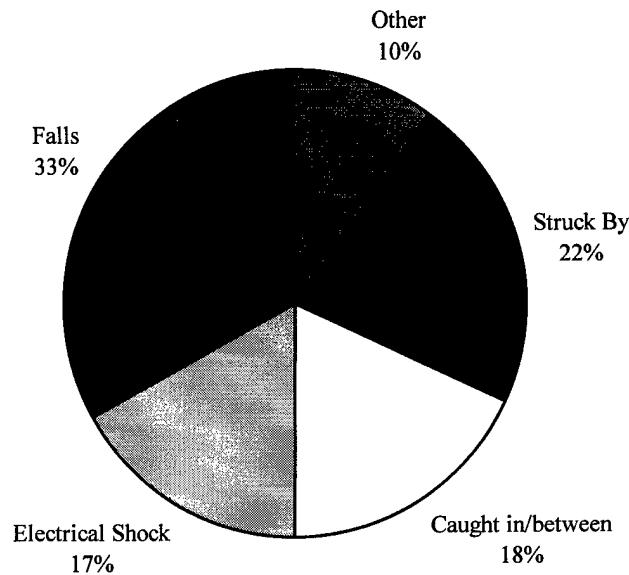


Figure 4.4 Construction Fatalities Investigated by OSHA 1985-1989 (From "Analysis of construction fatalities- the OSHA database 1985-1989", (U.S. Department 1990))

Each primary event type will be analyzed further in the following subsections.

4.3.2 ELECTROCUTIONS

In 1994, 18% of the fatalities were attributable to electrocutions. In 1995, this number increased to 23%. The total percentage for both 1994 and 1995 was 20%, which is slightly higher than the figures obtained from the 1985-1989 OSHA statistics. Figure 4.6 depicts the percentage of electrocutions attributable to each of the specific event types.

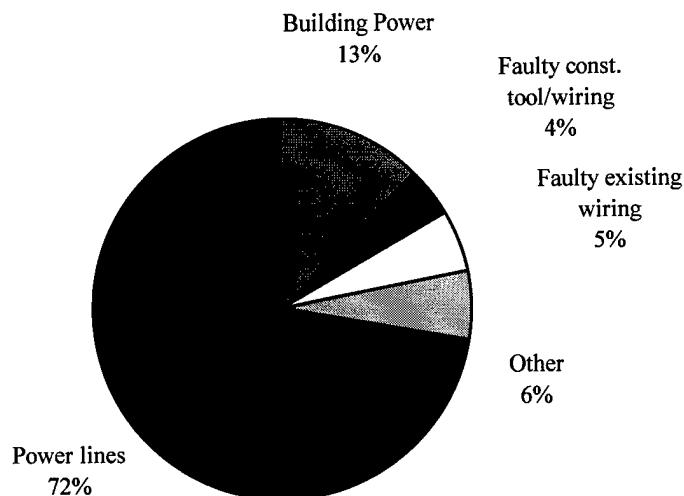


Figure 4.6 Electrocution Fatalities and Related Injuries, 1994-1995

Power line accidents accounted for the majority of the fatalities at 72%, followed by building power-related accidents at 13%. The category "Other" contained incidents which were obviously electrocutions but did not fall into any of the four specific areas, e.g. an electrician was working on an energized transformer and was electrocuted. This incident does not fall under power lines, building power, faulty existing wiring, or faulty construction tools/wiring, but is an electrocution. Therefore, it is classified as an

Electrocution-Other. Faulty existing wiring accounted for 5% and Faulty construction tools/wiring contained the remainder of the electrocutions at 4%.

4.3.3 STRUCK BY

Struck by was the third most prevalent event type. In 1994, 18% of the fatalities and related injuries were attributed to struck by accidents. This percentage increased slightly in 1995, to 19%. The total for both 1994 and 1995 was 18%. This figure is 3% lower than the statistics gathered by OSHA from 1985-1989. The new coding system is probably responsible for this change as the addition of the categories "cave-ins" and "explosion/fire" splits the data out into more specific categories. Figure 4.7 shows the results of the subcategories of the Struck by event type:

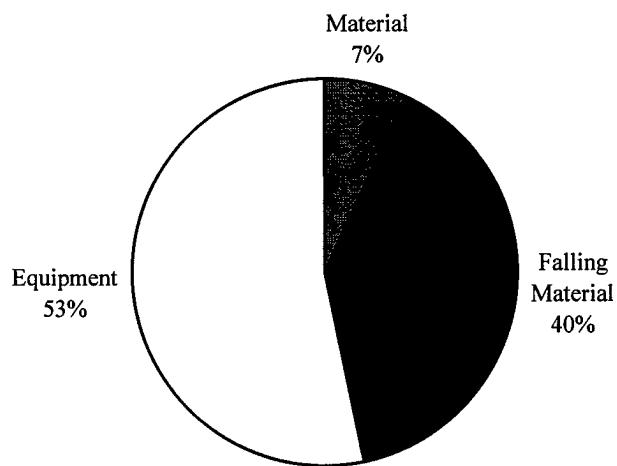


Figure 4.7 Struck by Fatalities and Related Injuries, 1994-1995

The majority (53%) of the accidents fall under the Struck by Equipment category, followed by Struck by Falling Material at 40%. Struck by Material contains the smallest percentage of incidents at 7%. A good example of Struck by Material is when a plug inserted into a pressurized pipe fails and strikes a worker. This subcategory of the Struck by event type is the one most subject to controversy. It is often difficult with some

abstracts to determine whether an accident was a Struck by Material or a Caught in/between Material.

4.3.4 CAUGHT IN/BETWEEN

The caught in/between event type contained 10% of the total fatalities and related injuries for 1994 and 1995. This was significantly lower than the data gathered from 1985-1989, and is most likely attributable to the new coding system which provides more specific codes to describe events which were previously categorized as Struck by, Caught in/between, and Other codes. Figure 4.8 shows the breakdown of this code.

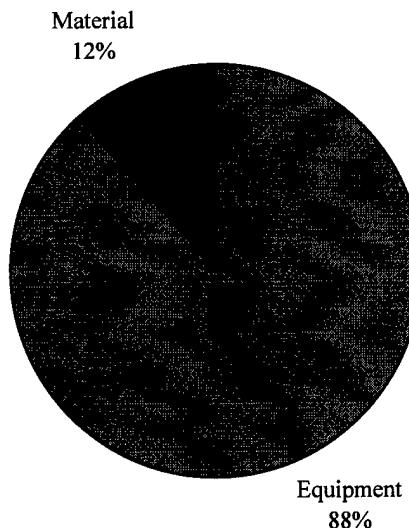


Figure 4.8 Caught in/between Fatalities and Related Injuries, 1994-1995

The vast majority of incidents fell into the Caught in/between Equipment category (88%) when compared to the Caught in/between Material subcategory (12%). As was previously mentioned, categorizing incidents into codes of Caught in/between Materials and Struck by Materials codes can be confusing. Instructions are provided in Appendix A for reference.

4.3.5 CAVE-INS

Cave-ins is a new code which is not currently used by OSHA, and therefore cannot be compared with previous data. However, 5% of all of the total fatalities and injuries for 1994-1995 can be attributed to this event type, which equates to nearly 50 fatalities each year. This fact alone is sufficient to justify the existence of the code. Figure 4.9 depicts the subcodes related to this event type.

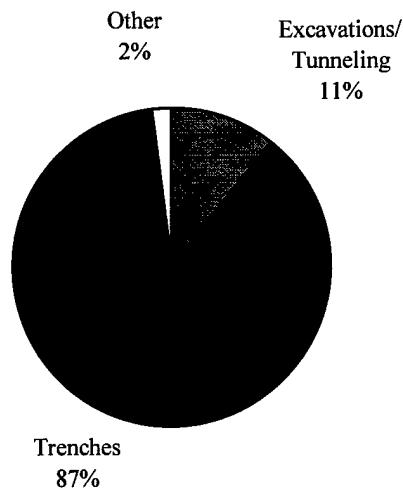


Figure 4.9 Cave-in Fatalities and Related Injuries, 1994-1995

As can be seen from the figure, most of the cave-in fatalities and injuries occurred in trenches (87%). In almost every instance, the trench was not properly supported by either sloped sides, trench boxes, or shoring. In some cases, a trench box was in place but the victim stepped out of the protected area and was caught by a cave-in.

4.3.6 MISCELLANEOUS

The code Miscellaneous is used to describe many of the event types which were previously contained under "Other" (Figures 4.10, 4.11, and 4.12).

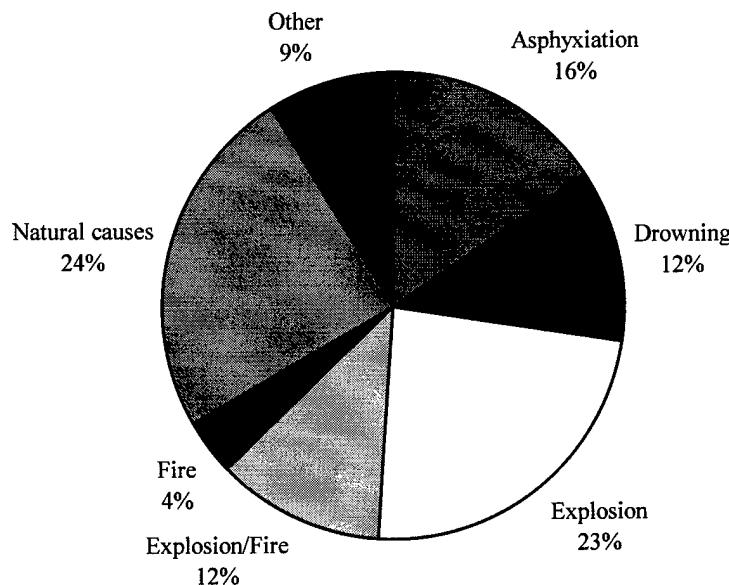


Figure 4.10 Miscellaneous Causes of Construction Fatalities and Related Injuries, 1994

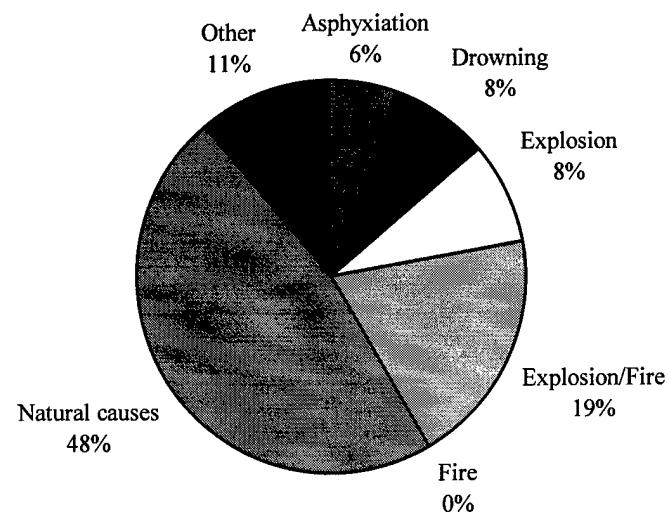


Figure 4.11 Miscellaneous Causes of Construction Fatalities and Related Injuries, 1995

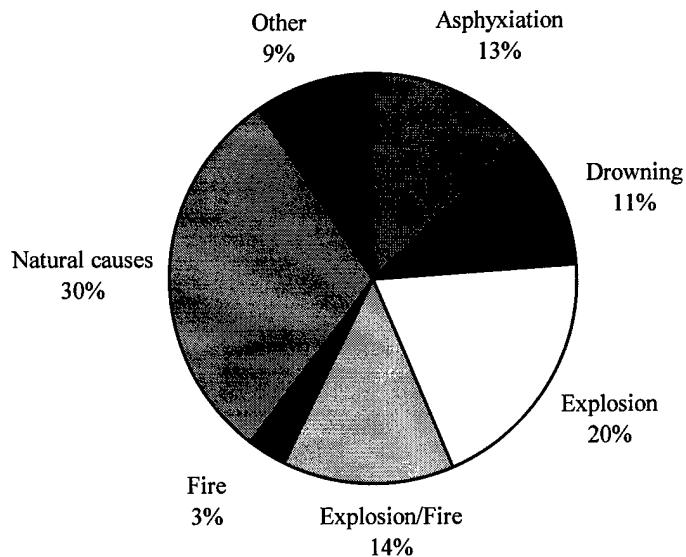


Figure 4.12 Total Miscellaneous Causes of Construction Fatalities and Related Injuries, 1994-1995

The Miscellaneous event types accounted for 13% of the total number of fatalities and related injuries for 1994 and 1995. When these numbers were broken down into their actual codes, the percentages occurring in each specific code were lower than the 5% attributed to Cave-ins. The most prevalent event type was Explosion/Fire which represented 37% of the miscellaneous causes and less than 5% ($37\% \times 13\%$) of all fatalities and related injuries. It is shown as three separate event types (Explosion, Fire, and Explosion/Fire) for ease of coding but should be considered as one event type. This is followed by Natural Causes at 30%, Asphyxiation at 13%, Drowning at 11%, and finally, Other at 9% of the miscellaneous cases. In the 1985-1989 data, "Other" accounted for 10% of the total number of fatalities. The new coding system reduced this figure to 1.2% ($9\% \times 13\%$) of the total number of accidents. The reduction of the

proportion of the fatalities categorized in the nondescriptive category of “Other” shows a significant improvement with the new coding system.

4.4 FINDINGS USING THE NEW CODING SYSTEM- SECONDARY FACTORS

The 1994-1995 data was evaluated using the final version of the checklist shown in Table 4.1. The checklist has two sections, the first for the primary event type, and the second to describe the events surrounding the accident. The secondary factors include such information as whether lockout/tagout was in effect, if a confined space was a factor, if PPE, shoring, or fall protection was used, the age and sex of the victim, how many people were killed or injured, the time of the accident, the occupation or work type, the SIC code of the employer, types of materials and materials handling, type of project, permanent and temporary structures, type of vehicle, large equipment, and small equipment, and a comments section if additional information is needed. Table 4.3 provides a summary of the secondary findings gathered from the database for 1994-1995. Note that in many instances, the abstract from OSHA did not contain the information required and therefore, data from that accident was not included in the results.

Table 4.3 Secondary Factors

Factor	Comments
Lockout/Tagout	Used Properly: 3 cases (1.5% of lockout/tagout cases) Used Improperly: 3 cases (1.5% of lockout/tagout cases) Not Used: 193 cases (97% of lockout/tagout cases)
Confined Space	21 cases considered confined space
Fall Height	Average: Greater than 6 feet
Trench Depth	Average: 11.5 feet (42 incidents)
Age	Average: 33.4 years (954 incidents)
Sex	Male: 947 cases (99%)
Time	AM: 145 cases (50%) PM: 144 cases (50%)
Others Involved	325 cases (34%)
Subject caused	541 cases (57%)
Equipment Type	Project: 354 cases (37%) Private: 21 cases (2%) None: 579 cases (61%)
Material Handling	Lateral: 256 cases (27%) Altering: 93 cases (10%) Hoisting: 93 cases (10%) None: 512 cases (54%)
Type of Project	New construction: 250 cases (26%) Repair: 138 cases (14%) Demolition: 44 cases (5%) Renovation: 9 cases (.9%) Remodel: 2 cases (.2%) Unknown: 523 cases (55%)

4.4.1 LOCKOUT/TAGOUT

Lockout/Tagout refers to situations in which the equipment or electrical supply should have been secured prior to working on the system. The database contained 199 incidents which involved lockout/tagout situations. In 193 of these accidents, lockout/tagout was not used when it should have been. In three incidents, lockout/tagout was used improperly and resulted in fatalities. In three other accidents, the lockout/tagout procedure was used properly but the work still resulted in a fatality. For example, one electrician properly locked out the electrical system but was killed by built up inductive current.

4.4.2 CONFINED SPACE

Confined spaces are loosely defined as those spaces which have or could have deficient oxygen content, and also those spaces with limited ingress and egress. In this study, trenches and other areas with limited ingress and egress were not considered confined spaces. Oxygen content was the only consideration, and it was found that 21 cases met these requirements for a confined space. Of these, ten were classified as Asphyxiations, eight were Explosion/Fires, one was a Drowning, and two were considered Others. In four incidents, confined space was not considered a factor in an Asphyxiation.

4.4.3 FALL HEIGHT AND FALL PROTECTION

The majority of falls had an elevation change of more than six feet. Only two falls occurred at the same level as they originated (falls from ground level), and 17 falls were from one to six feet. In 17 cases of Falls from Elevation, the height of the fall was not specified.

The database revealed that fall protection equipment was worn quite often; however, it appears that it failed more regularly than other PPE (15 incidents) and improper use accounted for a high percentage of accidents (24 incidents, or nearly 7% of all falls from elevation). New regulations concerning fall safety went into effect in 1995 and this might account for the common use of the fall protection systems. Due to the high percentage of failures and improper usage, employers may want to focus their attention in this area to prevent future injuries and fatalities.

4.4.4 OTHER PPE

PPE consists of fall protection systems, hardhats, steel-toed boots, breathing apparatus for confined spaces, reflective clothing, electrical rubber gloves, and others. Fall protection was discussed in the preceding paragraph. In analyzing the data from 1994-1995, five cases of Asphyxiation were attributable to the lack of PPE. PPE failed and resulted in fatalities in only one instance of Asphyxiation and one instance of Electrocution.

4.4.5 TRENCH DEPTH AND SHORING

In previous research (Bren, 1996), it was found that trench length and depth were the critical factors for cave-ins. Width was not a major factor influencing cave-in occurrences. Data in this research effort was collected on trench depth but not on length. Length has been added to the final checklist in Table 4.1 for future use. In analyzing the data from 1994-1995, the average trench depth for 42 Cave-in event types was 11.5 feet. Only one of these cave-ins was using a proper shoring system which failed. Out of the remaining 41 cases, six were either using an improperly constructed shoring system or the subject had left the protected area of the trench and was caught in a Cave-in.

4.4.6 AGE AND SEX OF THE SUBJECT

The average age for the victims in the database was 33.4 years of age. Out of the 954 fatalities in the database, only seven were women. Of these seven female fatalities, five were flaggers who were struck by either a private vehicle or a project dumptruck. In the remaining two cases, one involved an equipment operator in a rollover accident (Caught in/between Equipment) and the other involved the wife of a contractor who was helping stage electrical switchgear in his absence and was Caught in/between Material.

4.4.7 TIME OF THE ACCIDENT

An analysis of the database showed that only 285 incidents contained the time of the accident in the abstract. Figure 4.13 shows the distribution of fatalities at various times throughout the day. The highest number of injuries and fatalities occurred between the hours of 11:00 AM and 12:00 PM.

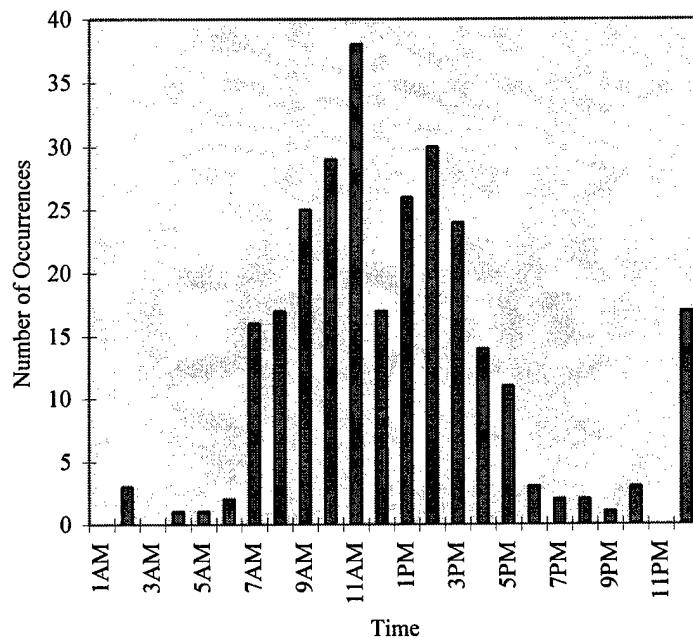


Figure 4.13 Time Distribution of Fatalities and Related Injuries

4.4.8 OTHERS INVOLVED

"Others involved" refers to those incidents where another person was involved in the events surrounding the fatality. Others were involved in 34% of the accidents included in the database.

4.4.9 CAUSED BY THE SUBJECT

In 57% of the fatalities in the database, the subject "caused" the accident. This factor was not intended to focus the blame for the accident on the individual but rather classify whether others caused the accident.

4.4.10 EQUIPMENT TYPE

An analysis of the equipment types shows that 94% of the accidents involving equipment were project related. The accidents which involved private vehicles were typically highway construction/repair projects.

4.4.11 MATERIAL HANDLING

Three types of material handling were entered into the database (lateral, hoisting, and altering). Lateral movement (58%) was responsible for the majority of the incidents involving material handling.

4.4.12 TYPE OF PROJECT

The type of project was known in 443 incidents. Of these, 56% were new construction projects. Repair projects followed with 31% of these cases.

4.4.13 ANALYSIS OF WORK TYPE AND EVENT TYPE

The database was sorted on work type and event type to determine which cause codes each trade was susceptible to in the construction industry. The major work types were carpenters, concrete workers, crane maintenance, welders/cutters, spotters (lifting operations), drywall installers, electricians, elevator repairers, equipment mechanics, equipment operators, flaggers, HVAC mechanics, masons, sheet metal workers, painters, plumber/pipfitters, roofers, and steel workers. It was often difficult and sometimes impossible to determine what the subject's occupation was at the time of death or injury and those cases were not included. Table 4.3 shows the breakdown of work type compared to event type.

Table 4.4 Analysis of Major Event Types for Large Occupation Types

Work Type	Event Type	(% of total)	Total # of Incidents
Carpenter	Fall from Elevation	(67.4)	46
	Struck by Falling Material	(17.4)	
Concrete worker	Struck by Equipment	(27.3)	11
	Struck by Falling Material	(18.2)	
	Fall from Elevation	(18.2)	
Crane Maintenance	Caught in/between Equipment	(100)	7
Welder/Cutter	Fall from Elevation	(32.1)	28
	Explosion/Fire	(25)	
	Natural Causes	(10.7)	
Spotter	Electrocution (power lines)	(48.6)	35
	Struck by Falling Material	(17.1)	
	Struck by Equipment	(11.4)	
Drywall Installer	Fall from Elevation	(76.9)	13
	Natural Causes	(15.4)	
Electrician	Electrocution	(63)	106
	Power lines	(40)	
	Building power	(13)	
	Other	(7)	
	Fall from Elevation	(26.4)	
Elevator Repairer	Fall from Elevation	(33)	12
	Struck by Falling Material	(33)	
Equipment Mechanic	Caught in/between Equipment	(82)	17
	Struck by Equipment	(11.7)	
Equipment Operator	Caught in/between Equipment	(50.5)	101
	Electrocution (power lines)	(9.9)	
	Struck by Equipment	(8.9)	

Table 4.4 Analysis of Major Event Types for Large Occupation Types (Continued)

Work Type	Event Type	(% of total)	Total # of Incidents
Flagger	Struck by Equipment	(100)	14
HVAC Mechanic	Electrocution (building power)	(33)	12
	Fall from Elevation	(33)	
Mason	Fall from Elevation	(76.5)	17
Sheet Metal Worker	Fall from Elevation	(58.3)	12
	Electrocution (power lines)	(16.7)	
Painter	Fall from Elevation	(50)	20
	Electrocution (power lines)	(25)	
Plumber/Pipefitter	Cave-in (trench)	(50)	52
	Electrocution (faulty exist wiring)	(9.6)	
	Fall from Elevation	(7.7)	
Roofer	Fall from Elevation	(82.4)	74
	Electrocution (power lines)	(10.8)	
Steel Worker	Fall from Elevation	(74.4)	39
	Struck by Falling Material	(12.8)	

An analysis of Table 4.3 shows that the event type Falls from Elevation was the predominant cause of fatalities and injuries for carpenters (67.4%), welders/cutters (32.1%), drywall installers (76.9%), elevator repairers (33%), HVAC mechanics (33%), masons (76.5%), sheet metal workers (58.3%), painters (50%), roofers (82.4%), and steel workers (74.4%). The occupational types of carpenter, drywall installer, mason, sheet metal worker, painter, and roofer should pay particularly close attention to these statistics since they account for at least half of all fatalities and injuries in their fields.

The second leading cause of injuries and fatalities was Electrocutions. This event type accounted for 48.6% of the incidents involving spotters, 63% of the cases involving electricians, and 33% of the HVAC mechanic incidents. Of those cases involving electricians, the majority (40%) were due to power line contacts.

The event type "Struck by" accounted for the third highest percentage of incidents. Struck by Equipment was the leading cause of fatalities and injuries amongst concrete workers (27.3%) and flaggers (100%). Struck by Falling Material was responsible for 33% of the fatalities and injuries in the elevator repair occupation.

Caught in/between Equipment was the leading cause of injury and death amongst equipment mechanics (82%), equipment operators (50.5%), and crane maintenance workers (100%).

The final event type was Cave-ins. This event type accounted for 50% of the incidents involving plumbers and pipefitters.

The information contained in this section allows safety professionals and managers to focus their safety efforts on the primary causes of fatalities for certain trades in the construction industry.

4.5 AUDIT OF THE NEW CODING SYSTEM

Sixty total cases were given to two test participants to determine whether the results of the new coding system could be duplicated by others. Ideally, there should be considerable consistency between the coding allocations being made by different individuals. The participants coded their cases and these results were compared to the data collected and coded for this study. Collectively, 92% of the codings were the same. The differing codings primarily represented ambiguity between the Struck by and Caught in/between cause codes, which was expected since it is often difficult to distinguish between the two categories. When the ambiguity was noted, the instructions for the checklist were further clarified. For example, a speed of 5 miles per hour or higher was a descriptor that was added to define a Struck by Equipment event type; however, a rollover accident (regardless of speed) was nearly always a Caught in/between Equipment event type. Additionally, the definition for "Fall from Ground Level" (falling into a hole, etc.) was expanded due to some confusion on the part of one of the test participants.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

This study focused on the development of a new coding system to classify the primary causes of fatalities and accidents in the construction industry. While OSHA uses a system with six event types; the revised coding system has nineteen primary event types, and twenty-three secondary factors which further define the events surrounding the accident.

5.2 CONCLUSIONS

The current OSHA coding system consists of six event types, Falls, Electrical Shock, Struck by, Struck Against, Caught in/between, and Other. This research developed a revised coding system consisting of 19 primary event types. The new coding system was tested against the OSHA data from 1994-1995, and then audited by two University of Washington graduate students. Based on this analysis, it can be concluded that the new system removes the ambiguity surrounding the actual cause of injury and death by expanding the causation event types. In addition, the secondary factors in the revised coding system clarify the events surrounding the accident and provide a level of detail that is missing from the current system. As a result, the data is more usable by construction and safety professionals and allows them to focus on the actual causes of injury and death on the job site.

5.3 RECOMMENDATIONS

The following recommendations are made:

- OSHA should implement the new coding system for classifying construction industry accidents involving fatalities and serious injuries. The information gathered under the new coding system should be distributed to the construction industry to assist in reducing fatality and injury rates.
- OSHA should provide training to all accident investigators who are responsible for data entry prior to implementing the new coding system. It is important that the event types be clearly understood, especially the Struck by and Caught in/between categories, and training will ensure consistency in data entry between the investigators.
- Further research should be conducted on the secondary factors of the new cause code checklist, especially the work type and SIC codes to identify risk groups. OSHA should sort the new database by work type or SIC and provide this information on a periodic basis to the construction industry. Awareness of the primary cause of death associated with each work type or SIC should provide the information by which managers and supervisors can reduce the number of serious injuries and fatalities in the construction industry. In addition, research could be conducted on equipment statistics such as whether the equipment was moving, being worked on, or hauling at the time of the accident, and whether the equipment was operating in the forward or reverse direction.
- Care should be taken in data entry to prevent typographical or informational errors in the new database. In order for the information to be used effectively, it must be entered accurately.

- All states should be required to submit their accident data to OSHA, and it should be in the form of the new checklist. The current database is incomplete since all states do not submit their accident data to OSHA.

REFERENCES

Bren, David, Construction Related Fatalities and Injuries Due to Power Line Contacts, Thesis, University of Washington, 1995.

Bren, Katherine, Analysis of Trench-Related Fatalities and Injuries, Thesis, University of Washington, 1996.

Hinze, Jimmie and Russell, Debra Bosma, Analysis of Fatalities Recorded by OSHA, Journal of Construction Engineering and Management, Vol. 121, No. 2, June 1995.

Gambatese, John A., Addressing Construction Worker Safety in Project Design, Doctor of Philosophy Dissertation, University of Washington, 1996.

National Safety Council, Accident Facts, 1995 Edition.

Thomson, Bernadine I., Investigation of Equipment Related Injuries and Fatalities in Construction, Thesis, University of Washington, 1996.

APPENDIX A

Instructions for Checklist

Block 1: ID number corresponding to case number.

Block 2: Fill in with one of the following event types to classify what **caused** the fatality/injury accident. In some instances, the cause of the accident might not be the actual cause of death; the cause may have triggered a chain of events which lead to the fatality.

Asphyxiation	Caught in/between Equipment
Caught in/between Materials	Cave-in (trench)
Cave-in (excavation)	Drowning
Electrocution (power lines)	Electrocution (faulty existing wiring)
Electrocution (building power)	Electrocution (other)
Explosion/Fire	Fall from Elevation
Fall from Ground Level	Natural Causes
Struck by Equipment	Struck by falling material
Struck by material	Other
Electrocution (Faulty construction tools/wiring)	

Description of event types:

Asphyxiation: Fatality/injury caused by some gas or toxic material that prevents normal breathing. Example: Welders entered confined space with low oxygen levels without any personal protective equipment (PPE). Breathing ceased due to lack of oxygen.

Caught in/between Equipment: Fatality/injury caused by slow moving or nonmoving equipment. Includes accidents involving moving equipment parts, or accidents involving slow moving equipment and a nonmoving object such as the ground. Example: Employee tried to climb up into a moving dozer by stepping on the tracks. Worker was pulled underneath the equipment.

Caught in/between Material: Fatality/injury caused by slow or nonmoving materials. Example: Employee was blocking a job trailer. One of the supports shifted and the trailer crushed the employee who was working underneath.

Cave-in (trench): Fatality/injury caused by a collapsing trench. A trench is a long, narrow excavation which should have sloped walls or be supported by shoring across the trench or a trench box if it exceeds 4' in depth. Example: Pipefitter was laying pipe in a ten foot deep trench without shoring or cave-in protection. Walls gave way and buried the pipefitter under five feet of soil.

Cave-in (excavation): Fatality/injury caused by a collapsing excavation. An excavation is generally wide and therefore cannot be supported across the excavation. Example: Employee was pile-driving in an excavation. The wall collapsed, pinning the worker against the pile-driver.

Drowning: Self-explanatory. Example: Equipment operator was reinforcing the berm around a lake; ground gave way and the dozer and operator sank to the bottom of the lake.

Electrocution (power lines): Fatality/injury caused by contact with either overhead or buried power lines. Also includes contact with electrical lines when working on substations and transformers. Example: Painter moved a ladder from one side of the house to the other; contacted overhead power line in the process.

Electrocution (building power): Fatality/injury caused by contact with the building power. Example: HVAC mechanic was installing duct work; drilled into floor joist to secure the ductwork and made contact with the building power.

Electrocution (faulty construction tool/wiring): Fatality/injury caused by contact with a tool with exposed wiring or faulty ground system. Example: Worker took a light into a crawl space of a house knowing that the light had a faulty cord. The cord fell into standing water and electrocuted the worker.

Electrocution (faulty existing wiring): Fatality/injury caused by contact with existing wiring which has some fault. Example: A worker was pulling ductwork in the attic and was electrocuted due to ungrounded wiring in the house.

Electrocution (other): Fatality/injury caused by electrocution but it does not fall into any of the other electrocution categories. Example: Employee was working on a malfunctioning waterheater without locking/tagging it out. Water leaked from a pipe and flooded the electric spaces, electrocuting the employee.

Explosion/Fire: Fatality/injury caused by an explosion or fire. Example: Welder cut into a tank which had not been adequately purged of confined gases. The tank exploded and started a fire.

Fall from elevation: Fatality/injury caused by a fall which involves an elevation change, usually a fall from any height above ground level. Example: Roofer misjudged the edge of the roof and fell from an elevation of twenty feet. Example: Plumber misjudged the edge of the trench and fell into the excavation.

Fall from Ground Level: Fatality/injury caused by a fall from the ground. Can also include falls that take place on some structure above the ground but the fall does not leave that elevation. Example: Plumber was working on third floor of building and tripped while walking and impaled himself on third-floor slab rebar.

Natural Causes: Fatality/injury caused by natural causes and over which the employer would generally be assumed to have no control. In some cases, the employer might have taken steps to prevent the fatality, e.g., heat stroke. In those cases where preventative measures might have been utilized, a note is made in the "Natural factor" column to indicate heat, wind, etc. In addition, a note is made in the last block to indicated what caused the death. Examples: heart attack, heat stroke, stroke, etc...

Struck by Equipment: Fatality/injury caused by equipment traveling at speeds in excess of 5 mph. Example: Flagger was struck by a semitruck while controlling traffic for a construction project.

Struck by Material: Fatality/injury caused by material moving laterally. Example: A pipe plug under pressure released from the pipe and struck the employee.

Struck by Falling Material: Fatality/injury caused by falling material. Example: Wind blew a newly-placed concrete wall over and onto a carpenter passing by.

Other: Fatality/injury which does not fall into any of the other categories. Example: Plumber died mysteriously under crawl space; no toxic materials were detected and oxygen levels were sufficient. Since cause of death is unknown, it is classified as "other".

Block 3: Lockout/Tagout employed: If applicable, fill this block in as "yes" if locked out and tagged out, "no" if not properly locked out/tagged out, and "NA" if not applicable.

Block 4: Confined Space: Fill this block in as "yes" if it was a confined space, "no" if the space was not confined, and "NA" if not applicable.

Block 5: Fall height: Fill this block in with one of the following: ground, 1-6', >6', or "NA" if not applicable.

Block 6: Trench depth and length. Fill in the actual trench depth and length. If not applicable, fill in "NA".

Block 7: Fall Protection/Shoring/PPE utilized: Fill in "yes", "no", or "NA" if not applicable.

Block 8: Others involved in the Accident: This is to indicate if any persons, other than the victim, were involved in the accident. Fill in "yes" or "no". The other persons could include crew members or others as long as they were directly involved with the accident.

Block 9: Caused by Subject: This is to indicate if the victim contributed in a major way to the cause of the accident. Fill in "yes" or "no". This question is not intended to focus blame on the individual but classify whether others caused the accident. An example of an accident caused by the victim is when a roofer misjudges the edge of the roof and falls. An example of an accident not caused by the victim is when a flagger is acting within the scope of his/her duties and is struck by a passing vehicle.

Block 10: Type of Large Equipment involved: This block should be filled in with the appropriate type of large equipment involved with the accident. Large equipment includes equipment which requires a driver. Examples: bulldozer, excavator, vehicle, dumptruck, scraper, crane, forklift etc..

Block 11: Vehicle or Equipment Type: Fill in "project" or "private" if large equipment or a vehicle was involved in the accident. Project equipment/vehicles include any equipment used on or for the project discussed in the abstract. A private vehicle/equipment includes equipment which was not involved in the project in the abstract.

Block 12: Type of Tools/Small Equipment involved: List any tool or small type of equipment involved in the accident. Small equipment does not normally involve a driver.

Block 13: Number of workers killed: This is self explanatory and should include the victim.

Block 14: Number of workers injured: This is self explanatory and should include all injured persons, but not those that are fatally injured.

Block 15: Natural Factors: Any natural event that affects the accident, e.g., lightning, wind, heat, etc.. If none are involved, state "none".

Block 16: Time of accident: The actual time should be listed in this block

Block 17: Sex of the worker. The sex of the victim(s) is listed.

Block 18: Age of the worker. The age of the victim(s) is listed.

Block 19: Type of Materials Involved: List the materials directly involved with the accident, or state "none". Examples are wood, concrete, steel, toxic materials, etc..

Block 20: Type of Materials Handling: If a material was listed in block 18, the type of handling should be listed in this block. The following codes should be used: hoisting (also includes lowering), lateral, or altering. If there was no materials handling, state "NA".

Block 21: Temporary Structures Involved: Temporary structures include ladders, scaffolds, temporary platforms, etc. List the type or state "none".

Block 22: Permanent Structure Involved: Permanent structures include buildings, houses, warehouses, highways/roadways, etc. The permanent structure should be the one the project is centered around.

Block 23: Type of Project: Types of projects include new construction, repair, remodel, and demolition.

Block 24: Work Type: This block should be filled in with the type of work the individual is doing at the time of the accident. For example, a pipefitter can be working on a vehicle which falls off its jacks and lands on him/her. The work type would then be equipment maintenance. The following are common types of work: equipment operator, equipment mechanic, spotter (crane/lifting operations), roofer, painter, electrician, plumber/pipefitter, metal worker, welder/cutter, communication worker, HVAC mechanic, sheetmetal installer, laborer, supervisor, elevator repairer, demolisher, concrete worker, mason, carpenter, asbestos worker, sider, flagger, drywall installer, or insulator. If it is unclear what the worker was doing at the time of the accident, state "unknown".

Block 25: Standard Industrial Classification (SIC) code: List the SIC code for the work classification. It is a four number code corresponding to the type of company employing the worker.

Block 26: Comments: Any comments that will clarify the situation surrounding the accident. Examples are overturning equipment, fall protection that fails, equipment with faulty backup alarms, etc.

General Rules:

If more than one report is made on a fatality or injury incident because of multiple victims, a notation should be made to cross-reference the reports to each other. This should be properly coded so that a subsequent data analysis would not count fatalities or injuries more than once.

APPENDIX B

Asphyxiation	na	yes	na	na	no	yes	none	none	generator	1	0	none	unkno	carbon monoxide	none	none	building	unknown	electrical equipment	1731		
Caught in/between equipment	na	na	na	na	no	no	no	no	dumptr	1	0	none	unkno	M	46	none	none	unknown	unknown	operator	1771	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	dozer	1	0	none	unkno	M	21	none	none	unknown	unknown	operator	1629	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	front loader	1	0	none	unkno	M	17	te	rebar/concre	unknown	unknown	laborer?	1771	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	excavat	1	0	none	unkno	M	57	dirt	lateral	none	unknown	operator	1629	
Caught in/between equipment	na	na	na	na	no	no	no	no	project	1	0	none	1:50	PM	57	dirt	lateral	none	retention pond	repair	operator	1629
Caught in/between equipment	na	na	na	na	no	no	no	no	boom	1	0	none	8:00	PM	57	steel beams	litter	none	new	construction	operations	1629
Caught in/between equipment	na	na	na	na	no	no	no	no	crane	1	0	none	unkno	M	40	barges	lateral	none	unknown	operator	1629	
Caught in/between equipment	na	na	na	na	yes	no	no	no	excavat	1	0	none	unkno	M	40	barges	lateral	none	unknown	operator	1629	
Caught in/between equipment	na	na	na	na	yes	yes	yes	yes	or, barges	1	0	none	unkno	M	49	none	none	none	none	operator	1629	
Caught in/between equipment	na	na	na	na	yes	yes	yes	yes	semifrac	1	0	none	unkno	M	67	none	none	none	road drainage ditch	operator	1629	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	trai	1	0	none	unkno	M	50	none	none	none	logging road	operator	1629	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	er	1	0	none	unkno	M	33	none	none	none	unknown	operator	1629	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	dumptr	1	0	none	unkno	M	25	none	none	none	plumber pipe fitter	operator	1781	
Caught in/between equipment	na	na	na	na	yes	no	yes	yes	backhoe	1	0	none	unkno	M	61	boiler tubes	hoisting	none	unknown	operator	1771	
Caught in/between equipment	na	na	na	na	yes	yes	yes	yes	rig, water	1	0	none	unkno	M	11:25	AM	43	none	none	operator	1771	
Caught in/between equipment	na	na	na	na	no	no	no	no	truck	1	0	none	unkno	M	1:00	none	none	none	driller	operator	1781	
Caught in/between equipment	na	na	na	na	no	yes	yes	yes	crane	1	0	none	unkno	M	11:25	AM	43	none	none	operator	1771	

Caught in/between equipment	na	na	na	yes	no	crane, pickup	project	none	1	0	none	unkno	M	20	none	none	none	none	unknown	unknown	unknown	equipment mechanic	1794			
Caught in/between equipment	na	na	na	no	yes	trackhoe	project	none	1	0	none	unkno	M	54	none	none	none	none	unknown	unknown	unknown	equipment operator	1795			
Caught in/between equipment	na	na	na	no	no	excavat	project	none	1	0	none	unkno	M	42	none	none	none	excavation	bridge	demolition	demolition	equipment operator	1795			
Caught in/between equipment	na	na	na	no	yes	dump truck	project	hammer	1	0	none	AM	M	30	none	none	none	none	unknown	unknown	unknown	equipment mechanic	1794			
Caught in/between equipment	na	na	na	no	yes	front end loader	project	s	1	0	none	PM	M	44	pipe	hoisting	none	none	none	unknown	unknown	unknown	equipment operator	1794		
Caught in/between equipment	no	na	na	no	yes	dozer	project	leveing pipe	1	0	none	unkno	M	35	none	none	none	none	none	none	none	equipment operator	1542			
Caught in/between equipment	na	na	4'	no	no	crawler	project	none	1	0	none	AM	M	43	soil	none	none	none	none	none	none	equipment operator	1794			
Caught in/between equipment	na	na	na	no	yes	bobcat	project	none	1	0	none	PM	M	30	soil	hoisting	none	none	none	new	construction	construction	equipment operator	1794		
Caught in/between equipment	na	na	na	no	no	loader	project	none	1	0	none	AM	M	44	soil	none	none	none	none	none	none	new	construction	construction	equipment operator	1794
Caught in/between equipment	no	na	na	no	yes	backhoe	project	none	1	0	none	unkno	M	40	bolt	swing cam	altering	none	none	unknown	unknown	unknown	parking area	removal	1542	
Caught in/between equipment	na	na	na	no	no	yes	trailer	project	amp	1	0	none	unkno	M	57	none	none	none	none	none	none	none	equipment mechanic/op	1629		
Caught in/between equipment	na	na	na	no	no	yes	dump truck	project	none	1	0	none	unkno	M	24	none	none	none	none	unknown	unknown	unknown	truck driver-equipment operator	1794		
Caught in/between equipment	na	na	na	no	no	yes	dump truck	project	front end loader	1	0	none	unkno	M	61	none	none	none	none	unknown	unknown	unknown	equipment operator	1771		
Caught in/between equipment	na	na	na	no	no	yes	dump truck	project	front end loader	1	0	none	unkno	M	51	none	none	none	none	unknown	unknown	unknown	hooking tow chain	1794		
Caught in/between equipment	na	na	na	yes	no	yes	dump truck	project	none	1	0	none	unkno	M	45	none	none	none	none	unknown	unknown	unknown	equipment mechanic	1794		

Caught in/between equipment	na	na	na	no	yes	dozer	project	none	1	0	none	unkno	M	24	none	none	unknown	unknown	unknown	operator	equipment	794	
Caught in/between equipment	na	na	na	no	yes	endload er	project	none	1	0	none	unkno	wn	M	36	none	none	unknown	unknown	unknown	operator	equipment	794
Caught in/between equipment	na	na	na	no	no	dozer; trailer	project	none	1	0	none	unkno	wn	M	51	dozer	hoisting;none	unknown	unknown	unknown	operator	equipment	794
Caught in/between equipment	na	na	na	no	no	low bed trailer	project	none	1	0	none	7.25	AM	50	excavator	hoisting;none	unknown	unknown	unknown	operations	equipment	794	
Caught in/between equipment	na	na	na	no	no	lowboy trailer	project	none	1	0	none	10.10	AM	55	dolly	hoisting;none	none	unknown	unknown	truck driver	equipment	794	
Caught in/between equipment	na	na	na	no	yes	no	project	none	1	0	none	unkno	wn	M	52	none	none	none	none	operator	equipment	1622	
Caught in/between equipment	na	na	na	yes	no	crane	project	pile hammer	1	0	none	9.15	AM	M	57	none	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	43	none	none	none	none	operator	mechanic/op	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	9.15	AM	M	57	none	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	37	none	key pin (hinge for boom)	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	37	none	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	11.00	AM	M	56	none	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	11.00	PM	M	19	hinge pins	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	11.30	PM	M	19	hinge pins	none	none	none	operator	mechanic	1622	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	28	none	none	none	none	operator	mechanic	1623	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	27	none	none	none	none	operator	mechanic	1623	
Caught in/between equipment	na	na	na	no	no	yes	project	none	1	0	none	unkno	wn	M	42	none	lateral track	meat storage	unknown	operator	equipment	1623	

Caught in/between equipment	na	na	na	no	yes	ladder	forklift	1	0	none	AM	20	none	none	unknown	unknown	unknown	unknown	equipment operator	1632	
Caught in/between equipment	na	na	na	no	yes	crane	project	none	1	0	none	wn	M	28	headache ball	hoisting	none	none	spotter	1632	
Caught in/between equipment	na	na	na	no	yes	tractor	project	none	1	0	none	AM	M	56	earth lateral	none	roadway	repair	equipment operator	1611	
Caught in/between equipment	na	na	na	no	yes	trailer	project	ladders	1	0	none	wn	M	36	none	none	none	unknown	repair to job trailer	1623	
Caught in/between equipment	na	na	na	no	yes	and pickup truck	project	none	1	0	none	wn	M	26	none	none	forklift to lift p/u off ground	unknown	equipment mechanic	1711	
Caught in/between equipment	na	na	na	no	yes	forklift	project	none	1	0	none	wn	M	36	none	none	mountain road	unknown	equipment operator-mason	1741	
Caught in/between equipment	na	na	na	no	yes	hopper for conveyor	project	skiploader	1	0	none	PM	M	36	none	none	conveyor system/rock hopper	garage retaining wall	new construction	inspector/tester/grader	1623
Caught in/between equipment	na	na	na	no	yes	speed swing (crane?)	project	none	1	0	none	wn	M	40	none	none	none	none	unknown	unknown	1629
Caught in/between equipment	na	na	na	no	no	high lift loader	project	none	1	0	none	wn	M	27	none	lateral	none	unknown	Equipment operator	1521	
Caught in/between equipment	na	na	na	no	yes	truck	project	none	1	0	none	wn	M	27	none	none	none	unknown	unknown (SIC 1731-electrical)	1731	
Caught in/between equipment	na	na	na	no	yes	backhoe	project	none	1	0	none	wn	M	37	none	none	road	new construction	telephone installers	1731	
Caught in/between equipment	na	na	na	no	yes	trencher	project	none	1	0	none	wn	M	29	none	none	oil/gas well	new	SIC 1731-electrical	1731	
Caught in/between equipment	na	na	na	yes	no	forklift	project	none	0	1	none	AM	M	43	people	hoisting	working platform	building	equipment operator	1743	
Caught in/between equipment	na	na	na	yes	yes	forklift	project	none	1	0	none	wn	M	57	none	none	none	new construction	new equipment operator	1794	
Caught in/between equipment	na	na	na	no	yes	loader	project	none	1	0	none	wn	M	57	none	none	none	driveway	unknown	unknown	

Caught in/between equipment	na	na	na	na	na	yes	lowboy trailer	project position	1	0	none	AM	M	30	none	none	none	none	unknown	unknown	equipment operator	1611	
Caught in/between equipment	na	na	na	na	na	yes	backhoe/project boom/outrigger	project	1	0	none	wn	M	27	none	none	none	none	unknown	unknown	equipment operator	1611	
Caught in/between equipment	na	na	na	na	na	yes	dump truck	project	1	0	none	wn	M	26	hydraulic fluid	altering	none	none	repair	equipment operator	1771		
Caught in/between equipment	no	na	na	na	na	yes	elevator/project	none	1	0	none	AM	M	55	none	none	none	building	repair	elevator repairer	1796		
Caught in/between equipment	na	na	na	na	na	yes	fuel/ser vice	project	1	0	none	wn	M	20	none	none	none	none	unknown	unknown	equipment mechanic	1611	
Caught in/between equipment	na	na	na	na	na	yes	vehicle	project	1	0	none	wn	M	57	earth	lateral	none	roadway	new construction	equipment operator	1611		
Caught in/between equipment	na	na	na	na	na	yes	hi-lo truck	project	1	0	none	PM	M	54	none	none	none	unknown	unknown	unknown	equipment operator	1611	
Caught in/between equipment	na	na	na	na	na	yes	no	project	1	0	none	wn	M	54	none	none	none	none	unknown	unknown	unknown	1761	
Caught in/between equipment	na	na	na	na	na	yes	riding lawnmower	project	1	0	none	PM	M	46	none	none	none	none	unknown	unknown	grounds maintenance	1629	
Caught in/between equipment	na	na	na	na	na	yes	scraper	project	1	0	none	wn	M	51	hay	lateral	none	road	unknown	unknown	laborer	1623	
Caught in/between equipment	na	na	na	na	na	yes	truck	project	1	0	none	wn	M	54	none	none	none	none	unknown	unknown	equipment mechanic	1711	
Caught in/between equipment	na	na	na	na	na	yes	none	none	1	0	none	wn	M	18	none	none	none	none	none	none	none	1622	
Caught in/between equipment	na	na	na	na	na	yes	Flat bed truck	project	1	0	none	wn	M	51	hay	lateral	none	road	unknown	unknown	crane maintenance	1622	
Caught in/between equipment	na	na	na	na	na	yes	dump truck	project	1	0	none	wn	M	64	none	none	none	none	none	none	crane maintenance	1799	
Caught in/between equipment	na	na	na	na	na	yes	crane, flatbed	project	1	0	none	wn	M	40	none	none	none	none	none	none	crane maintenance	1791	
Caught in/between equipment	na	na	na	na	na	yes	crane	project boom, pins	1	0	none	wn	M	57	steel plate	lateral	none	none	none	unknown	unknown	crane operator	1623
Caught in/between equipment	na	na	na	na	na	yes	crane	project	1	0	none	wn	M	49	sheet piling/vib. hammer	lateral	timber mats	timber mats	unknown	unknown	equipment operator	1623	

Caught in/between equipment	na	na	na	no	yes	dump truck	project	jack	1	0	none	unkno wn	M	12	none	none	none	unknown	equipment mechanic	1623	
Caught in/between equipment	na	na	na	no	no	platform	project	none	1	0	none	unkno wn	M	44	none	none	waterline for pier	new construction	plumber/pipe fitter	1711	
Caught in/between equipment	na	na	na	no	yes	forklift	project	none	1	0	none	unkno wn	M	41	none	none	none	unknown	laborer	1711	
Caught in/between equipment	na	na	na	no	yes	forklift	project	none	1	0	none	unkno wn	M	51	none	none	none	unknown	equipment mechanic	1611	
Caught in/between equipment	na	na	na	no	no	dumptruck	project	none	1	0	none	unkno wn	M	38	none	none	building	none	Caught under electrical o/h	1731	
Caught in/between equipment	na	na	na	no	yes	forklift	project	none	overhead door	1	0	none	M	M	645P	none	none	none	unknown	laborer	1711
Caught in/between equipment	na	na	na	no	no	forklift	project	none	boom connector	1	0	none	M	M	1245	none	none	none	unknown	new construction	1711
Caught in/between equipment	na	na	na	no	yes	crane	project	pins	boom connector	1	0	none	PM	M	229	none	none	none	unknown	demolition	1796
Caught in/between equipment	na	na	na	no	yes	milling machine	project	none	boom connector	1	0	none	AM	M	40	none	none	none	unknown	crane oiler	1796
Caught in/between equipment	na	na	na	no	yes	trailer	project	none	boom connector	1	0	rain	wn	M	30	none	none	none	unknown	operator	1611
Caught in/between equipment	na	na	na	yes	no	backhoe	project	none	boom connector	1	0	rain	wn	M	30	none	none	none	new construction	operator	1799
Caught in/between equipment	na	na	na	no	yes	roller	project	none	boom connector	1	0	none	PM	F	23	none	none	none	road	operator	1611
Caught in/between equipment	na	na	na	no	yes	dozer, low boy	project	none	boom connector	1	0	none	PM	M	44	none	none	none	loading ramps	operator	1794
Caught in/between equipment	na	na	na	no	yes	lift	project	none	boom connector	1	0	none	wn	M	31	none	none	none	bridge	operator	1611
Caught in/between equipment	na	na	na	no	yes	press rolls	project	none	boom connector	1	0	none	wn	M	38	none	none	none	unknown	equipment operator	1611
Caught in/between equipment	na	na	na	no	yes	press rolls	project	none	boom connector	1	0	none	wn	M	22	none	none	none	unknown	repair	1796
Caught in/between equipment	na	na	na	no	yes	trailer	project	jack stand	1	0	none	wn	M	54	none	none	none	unknown	laborer	1799	
Caught in/between equipment	na	na	na	no	yes	utility trailer	project	sinder block	1	0	none	wn	M	54	none	none	none	unknown	mechanic	1799	

Caught in/between equipment	na	na	na	na	yes	roller compact or	project none	1	0	none	unkno	none	unknown	unknown	equipment operator	1611			
Caught in/between equipment	na	na	na	na	yes	compact or	project none	1	0	none	unkno	none	unknown	new construction	equipment operator	1611			
Caught in/between equipment	na	na	na	na	no	dumptr ck, dozer	project none	1	0	night	400	31	mud	lateral	none	equipment operator	1611		
Caught in/between equipment	na	na	na	na	yes	compact or/trailor	project none	1	0	AM	M	31	none	none	unknown	equipment operator	1611		
Caught in/between equipment	na	na	na	na	no	project none	1	0	none	unkno	M	31	none	none	none	equipment operator	1611		
Caught in/between equipment	na	na	na	na	yes	project none	1	0	none	unkno	M	31	none	none	none	equipment operator	1611		
Caught in/between equipment	na	na	na	na	no	project none	1	0	none	unkno	M	30	none	none	house	new construction	operator		
Caught in/between equipment	na	na	na	na	yes	loader	project none	1	0	none	unkno	M	21	none	none	none	equipment operator	1521	
Caught in/between equipment	na	na	na	na	no	dozer/tr ailer	project none	1	0	none	unkno	M	42	none	none	none	equipment operator	1611	
Caught in/between equipment	na	na	na	na	yes	crane	project boom	1	0	none	unkno	M	42	none	none	none	crane operator	1611	
Caught in/between equipment	na	na	na	na	no	base	mount	1	0	none	unkno	M	30	none	none	none	lifting material	1796	
Caught in/between equipment	na	na	na	na	yes	project none	1	1	none	M.M	30	44	piston	hoisting, none	unknown	unknown	Manual Matl Handling	1521	
Caught in/between equipment	na	na	na	na	no	project board	1	0	none	PM	M	42	concrete	lateral	none	none	unknown	operator	1611
Caught in/between equipment	na	na	na	na	yes	dumptr ck	project none	1	0	none	unkno	M	46	unknown	none	none	unknown	operator	1611
Caught in/between equipment	na	na	na	na	no	project none	1	0	none	PM	M	46	unknown	none	none	unknown	operator	1611	
Caught in/between equipment	na	na	na	na	yes	compact or	project none	1	0	none	unkno	M	31	trash	lateral	none	unknown	operator	1611
Caught in/between equipment	na	na	na	na	no	skid steer	project none	1	0	none	unkno	M	27	none	none	none	unknown	operator	1799
Caught in/between equipment	na	na	na	na	yes	dozer/tr ailer	project none	1	0	none	unkno	M	40	none	none	none	unknown	operator	1611
Caught in/between equipment	na	na	na	na	no	tractor	project battery cables	1	0	none	unkno	M	52	oil	altering, none	unknown	operator	1799	
Caught in/between equipment	no	na	na	na	yes	personnel	el hoist project none	1	0	none	unkno	M	52	oil	altering, none	unknown	operator	1799	

Caught in/between equipment	no	na	na	na	no	yes	elevator	project	none	1	0	none	wn	M	30	none	none	none	building	repair	elevator repairer	1796	
Caught in/between material	na	na	na	na	no	no	none	none	none	1	0	none	wn	M	37	concrete, forms	none	trench/form work	none	new construction	concrete worker	1623	
Caught in/between material	na	na	na	na	yes	no	forktruc	project	pipes	1	0	none	wn	M	45	electrical panel box (3000 lb)	lateral	platform	building	demolition	guiding lifting	demolisher	1796
Caught in/between material	na	na	na	na	yes	no	backhoe	project	chain slings	1	0	none	AM	M	56	pipe	hoisting	excavation system	pipe	unknown	operations	guiding lifting	1794
Caught in/between material	na	na	na	na	no	yes	none	none	none	0	0	none	wn	M	39	none	none	steel cage	unknown	unknown	ironworker?	1622	
Caught in/between material	na	na	na	na	no	no	none	none	none	1	1	none	wn	M	47	18 concrete	none	lowern g/hoist ing	none	new construction	unknown laborer?	1771	
Caught in/between material	na	na	na	na	yes	no	crane	project	conbars	1	0	none	wn	M	44	concrete	none	none	concrete tank	unknown	spotters	1629	
Caught in/between material	na	na	na	na	no	no	rigging	project	none	1	0	none	wn	M	42	steel I beam	lateral	none	house	Moving	unknown	guiding forklift	1799
Caught in/between material	na	na	na	na	yes	no	truck	project	trailer	1	0	none	wn	M	16	electrical switchgear	hoisting	none	none	unknown	operator	guiding forklift operator	1795
Caught in/between material	na	na	na	na	yes	no	forklift	project	none	1	0	none	wn	F	42	wheel axles	lateral	jacks	mobile home	new construction	construction trades	guiding forklift	1799
Caught in/between material	na	na	na	na	yes	yes	none	none	none	1	0	none	AM	M	51	metal	altering	none	water tower	demolition	cutter	boiler cutter	1795
Caught in/between material	na	na	na	na	no	yes	none	none	none	1	0	none	PM	M	50	boiler	none	none	modular home	new	construction	boiler installer	1711
Caught in/between material	na	na	na	na	no	no	none	none	none	1	0	none	wn	M	60	boiler	none	none	building	unknown	placement	placing home	1799
Caught in/between material	na	na	na	na	no	yes	none	none	none	1	0	none	AM	M	24	modular home	hoisting	none	modular home	new	construction	new in new location	1799
Cave-in (excavation/tunneling)	na	na	na	na	no	no	over 18 feet	project	none	1	0	none	AM	M	39	drill	none	excavation	none	new construction	equipment operator	1629	

Cave-in (excavation/tunneling)	na	na	8' unkno	wn	no	pile driver	project	none	1	0	none	1:45	PM	M	35	earth	none	none	none	unknown	unknown	unknown	1622	
Cave-in (excavation/tunneling)	na	na	35-40'	no	yes	no	tractor loader	project	none	2	0	none	3:50	PM	MM	44:53	dirt	lateral	pit	excavation	unknown	unknown	equipment operator	1794
Cave-in (excavation/tunneling)	na	na	10'	no	no	no	none	none	1	0	none	unkno	M	25	none	none	unkno	unkno	unkno	excavation/trench	unknown	unknown	unknown	1623
Cave-in (excavation/tunneling)	na	na	unkno	wn	no	no	none	none	1	0	none	unkno	M	26	none	none	excavation	none	none	excavation	unknown	unknown	unknown	1622
Cave-in (other)	na	na	20'	no	no	no	caisson	project	none	1	0	none	3:24	PM	M	61	soil	caisson	holes	none	new	construction	operator	1794
Cave-in (trench)	na	na	10'	no	yes	no	none	none	1	0	none	3:30	PM	M	44	earth	none	trench	sewer line	unknown	sewer line	plumber/pipe fitter	1623	
Cave-in (trench)	na	na	11'	remov	no	yes	none	none	1	0	none	8:40	AM	M	41	none	none	none	trench	unknown	unknown	plumber/pipe fitter	1623	
Cave-in (trench)	na	na	8'	no	no	no	none	gas torch	1	0	none	6:30	AM	M	53	none	none	trench	steam pipe	demolition	welder/cutter	1711		
Cave-in (trench)	na	na	10'	yes	yes-impro	per	no	none	shovel	1	0	none	unkno	M	52	earth	none	none	trench	sanitary sewer system	new	construction	piplayer	1623
Cave-in (trench)	na	na	8'	no	yes	no	backhoe	project	none	1	0	none	1:29	PM	M	28	dirt	lateral	trench	foundation	new wall	construction	concrete	1771
Cave-in (trench)	na	yes	6'	no	no	no	none	none	1	0	none	unkno	M	25	unkno	none	none	trench	unknown	unknown	plumber/pipe fitter	1794		
Cave-in (trench)	na	na	9 ft	et	no	no	no	no	1	0	none	unkno	M	29	earth	none	trench	unkno	unknown	new	construction	filter	1623	
Cave-in (trench)	na	na	unkno	wn	no	no	no	no	1	0	none	unkno	M	25	sewer pipe	lateral	trench	sewer line	unknown	unknown	utility	construction	1629	
Cave-in (trench)	na	na	7'	no	no	no	none	none	1	0	none	unkno	M	32	pvc pipe	lateral	trench	drain tile line	new	construction	drain tile	construction	1711	

Cave-in (trench)	na	na	10'	no	no	none	none	none	1	0	none	5:30 PM	M	26	none	none	trench	pipe	unknown	plumber/pipe fitter	1711	
Cave-in (trench)	na	na	13'	no	no	none	none	none	1	0	none	11:30 AM	M	35	none	none	trench	sanitary sewer system	new construction	plumber/pipe fitter	1711	
Cave-in (trench)	na	na	12'	yes	no	none	none	none	1	1	none	unkno	M	52,21	clay pipe	lateral	unknown	unknown	plumber/pipe fitter	1711		
Cave-in (trench)	na	na	8'	no	yes	no	backhoe	project	1	0	none	unkno	M	34	none	none	trench	septic system	new construction	grade checker	1711	
Cave-in (trench)	na	na	12'	no	yes	no	backhoe	project	1	0	none	unkno	M	43	none	none	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	9.5'	no	yes	no	backhoe	project	1	0	none	unkno	M	38	earth	none	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	11'	no	no	none	none	none	1	0	none	unkno	M	29	earth	none	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	10-11'	no	no	none	none	none	1	0	none	unkno	M	29	earth	none	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	14'	no	yes	no	backhoe	project	1	0	none	unkno	M	32	dirt	none	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	8.5'	yes	no	backhoe	project	none	1	0	none	unkno	M	49	pipe	lateral	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	5.5'	no	no	none	none	none	1	0	none	unkno	M	49	pipe	lateral	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	na	14'	yes-partial	yes	no	backhoe	project	1	0	none	unkno	M	26	pipe	lateral	trench	storm water sewer system	new	construction	grade checker	1711
Cave-in (trench)	na	no	12'	no	yes	no	excavat	or	2	0	none	unkno	M,M,54,?	pipe	none	trench	house	repair	repair	repair	1531	
Cave-in (trench)	na	na	7'	no	no	none	none	none	1	0	none	unkno	M	28	earth	none	trench	unknown	unknown	unknown	1623	
Cave-in (trench)	na	na	10-12'	no	no	none	none	none	1	0	none	unkno	M	49	pipe	altering	trench	unknown	unknown	unknown	1623	

Cave-in (trench)	na	na	10-12'	no	yes	no	trackhoe	project	none	1	1	none	AM	M	36.36	soil	altering	trench	sewer	system	unknown	unknown	1711	
Cave-in (trench)	na	na	7	no	no	no	backhoe	project	none	1	0	none	wn	M	40	none	none	trench	sewer	system	repair	laborer	1623	
Cave-in (trench)	na	na	5.5	no	no	no	none	none	none	1	0	none	wn	M	23	sewer pipe	lateral	trench	sewer	system	unknown	plumber/pipe	1623	
Cave-in (trench)	na	na	unk	no	wn	no	no	no	none	1	0	none	AM	M	40	pipe	lateral	trench	sewer	system	new	plumber/pipe	1623	
Cave-in (trench)	na	na	8-12'	no	no	no	none	none	none	1	0	none	wn	M	56	pipe	lateral	trench	residential	new	plumber/pipe	construction	1623	
Cave-in (trench)	na	na	12'	no	yes	yes	none	none	none	1	1	none	wn	M	29.30	earth	none	trench	residential	new	plumber/pipe	construction	1623	
Cave-in (trench)	na	na	10'	no	no	no	trackhoe	project	none	1	0	none	AM	M	37	none	none	trench	pipe	system	new	plumber/pipe	construction	1521
Cave-in (trench)	na	na	17'	no	no	no	none	none	none	1	0	none	AM	M	30	none	none	trench	water/sew	new	construction	operator	1794	
Cave-in (trench)	na	na	impro	per	no	yes	none	none	none	1	0	none	AM	M	44	pipe	lateral	trench	trench	unknown	unknown	unknown	1711	
Cave-in (trench)	na	na	unk	no	no	no	dozer	project	none	1	0	none	wn	M	29	dirt	lateral	trench	shield, sewer	system	unknown	plumber/pipe	1794	
Cave-in (trench)	na	na	14'	no	no	no	none	none	none	1	0	none	wn	M	36	none	none	trench	drainage	new	plumber/pipe	construction	1623	
Cave-in (trench)	na	na	10'	no	yes	no	none	none	none	2	1	none	PM	M	19.20	pipe	lateral	trench	sewer	system	new	plumber/pipe	construction	1623
Cave-in (trench)	na	na	12'	no	no	no	none	none	none	1	0	none	wn	M	45	unknown	none	trench	unknown	unknown	unknown	plumber/pipe	1794	

Cave-in (trench)	na	na	6.5' no	no	no	none	shovel	1	0	none	3:30 PM	M	47	dirt	lateral trench	storm drain system	new construction	plumber/pipe filter	794	
Cave-in (trench)	na	na	yes- impro per	yes	no	none	none	1	0	none	unkno	wn	M	28	sump pump/disch large hose	pipe system	new construction	plumber/pipe filter	1794	
Cave-in (trench)	na	na	22' per unk	no	no	none	none	1	0	none	unkno	wn	M	54	pipe	sewer system	renovation	plumber/pipe filter	1623	
Cave-in (trench)	na	na	9- 10' use	no	yes	none	none	1	0	none	10:30 AM	M	43	earth	none	unknown	plumber/pipe filter?	1542		
Drowning	na	na	na	na	yes	barge	project	2	1	seas	unkno	M	24	anchor and chain	hoisting/none	none	repair	unknown	1629	
Drowning	na	na	na	na	no	none	none	1	0	none	unkno	wn	M	41	none	none	culvert	removing debris from	1611	
Drowning	na	na	na	na	yes	skiff boot, barge	project	1	0	none	unkno	11:30 AM	M	33	none	none	repair	unknown	1629	
Drowning	na	na	na	na	no	none	none	1	0	none	unkno	wn	M	45	dirt	lateral berm	new construction	equipment operator	1629	
Drowning	na	na	na	na	yes	dozer	project	1	0	none	unkno	wn	M	38	dirt	lateral berm	unknown	equipment operator	1629	
Drowning	na	na	na	na	no	none	none	1	0	none	unkno	1	0	lawnmower	lateral berm	drainage canal	unknown	grounds maintenance	1629	
Drowning	na	na	na	na	yes	boat	project	1	0	none	high	unkno	M	29	vegetation	none	none	unknown	welders	1629
Drowning	na	na	na	na	no	yes	dozer	1	0	none	unkno	wn	M	40	riprap	lateral causeway	bridge	repair	equipment operator	1622
Drowning	na	na	na	na	no	no	tractor	1	0	none	unkno	wn	M	58	none	none	lagoon	pumping out	lagoon	1542
Drowning	na	na	na	na	no	yes	project	1	0	none	pump,	wn	M	31	water	none	unknown	swimming on lunch break	1799	

Drowning	no	yes	na	na	no	turbines	project	air line	1	0	none	wn	M	27	none	none	none	hydroelect	unknown	diver	1799		
Drowning	na	yes	na	no	yes	none	none	rubber bladders	1	0	none	AM	M	48	none	none	bracing	sewer drain system	new construction	laborers	1794		
Drowning	na	na	na	na	no	yes	dozer	project	none	1	0	none	PM	M	32	rock	lateral	ice	jetty	new construction operator	equipment operator	1611	
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	1	0	none	wn	M	45	none	none	transformer	unknown	electrical	731		
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	1	0	none	wn	M	20	light fixture	lateral	none	building	unknown	electrical	1731	
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	1	0	none	wn	M	33	wood	sheet metal, wood	altering	none	house	new construction	mechanic	1711
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	drill	1	0	none	wn	M	30	wood	altering	none	house	new construction	mechanic	1711
Electrocution (building power)	no	na	no	no	yes	none	none	none	drill/router attachment	1	0	none	wn	M	25	breakers	altering	none	building	repair	electrical	1731	
Electrocution (building power)	yes	impro	per	na	no	no	yes	none	none	wood 2X4	1	0	none	wn	M	23	none	none	house	repair	electrical	1731	
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	wire cutters	1	0	none	wn	M	35	ballast/light fixture	altering	stepladder	conveyor system, hospital	repair	electrical	1731
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	wire stripper	1	0	none	wn	M	20	none	none	building	unknown	electrician	1711	
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	wire stripper	1	0	none	wn	M	25	32	none	none	house	repair	leveling crew	1799
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	metal bar and plate, level jack	1	1	none	wn	M	4.20	straps; wood joist	aluminum	new construction	mechanics	1711		
Electrocution (building power)	no	na	na	no	yes	yes	none	none	none	drill	2	0	none	PM	M	29.45	altering	none	house	new construction	fence installer	1799	
Electrocution (building power)	no	na	na	no	no	yes	none	none	none	none	1	0	none	PM	M	18	fence post, lateral	scaffold	building	construction	fence	1799	

Electrocution (building power)	yes-improper	na	no	yes	none	none	none	1	0	none	unkno	23	cable	lateral	none	building	repair	asbestos worker	1799
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	41	paint	none	ladder	building	unknown	painter	1721
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	2:00P	44	wiring	altering	none	building	new construction	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	32	light fixture	altering	ladder	building	unknown	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	39	wireway covers	altering	none	automobile plant	renovation	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	AM	39	wireway covers	altering	none	automobile plant	renovation	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	35	electrical circuit	altering	none	building	renovation	carpenter	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	38	wall switch	altering	none	building	repair	electrician	1542
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	2:30P	29	wire	lateral	none	building	repair	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	43	sheet metal screws, wood	altering	none	house	new construction	hvac mechanic	1711
Electrocution (building power)	no	na	no	yes	none	none	painting equipment	1	0	none	unkno	55	paint	altering	none	building	repair	elevator repairer	1796
Electrocution (building power)	no	na	no	yes	none	none	paint brush	1	0	none	unkno	72	none	none	none	light plant	repair	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	paint brush	1	0	none	unkno	34	wire	none	none	building	repair	asbestos worker	1799
Electrocution (building power)	no	na	no	yes	none	none	paint brush	1	0	none	unkno	25	none	none	none	building	electrical service	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	paint brush	1	0	none	unkno	60	Overhead light feed wires	altering	none	building	repair	electrical	1731
Electrocution (building power)	no	na	no	yes	none	none	paint brush	1	0	none	unkno	60	Overhead light feed wires	altering	none	building	electrical	electrical	1731

Electrocution (faulty const tool/wiring)	na	na	na	na	no	no	none	none	unknown	1	0	water	vn	M	32	none	none	building	unknown	carpenter	1742		
Electrocution (faulty const tool/wiring)	no	na	na	na	no	yes	none	none	floor sanding machine	1	0	v	vn	M	22	wood	altering	none	building	unknown	sanding floor	1752	
Electrocution (faulty const tool/wiring)	na	na	na	na	no	yes	none	none	drop light cord	1	0	none	PM	M	18	none	none	house	new	construction	mechanic	1711	
Electrocution (faulty const tool/wiring)	no	na	na	na	no	yes	none	none	portable light	1	0	none	vn	M	40	none	none	house	unknown	fitter	plumber/pipe	711	
Electrocution (faulty const tool/wiring)	no	na	na	na	no	yes	none	none	electrical snake	1	0	none	vn	M	27	none	none	house	unknown	fitter	plumber/pipe	1711	
Electrocution (faulty const tool/wiring)	no	na	na	na	no	no	none	none	pump	1	0	none	vn	M	22	none	none	house	drain line	repair	draining swimming pool	1711	
Electrocution (faulty const tool/wiring)	na	na	na	na	no	yes	none	none	welder	1	0	water	PM	M	29	none	none	house	laundry tub	repair	welder	1799	
Electrocution (faulty const tool/wiring)	no	na	na	na	no	yes	none	none	scissor lift	1	0	none	vn	M	23	none	none	house	unknown	electrician	steel worker	1542	
Electrocution (faulty const tool/wiring)	na	na	na	na	no	yes	no	none	project nibbler	1	0	none	PM	M	19	screws	altering	ladder	building	unknown	plumber/pipe	1711	
Electrocution (faulty const tool/wiring)	na	na	na	na	no	yes	none	none	electrical handrail	1	0	none	AM	M	30	none	none	house	unknown	construction	new	1711	
Electrocution (faulty existing wiring)	no	na	na	na	no	no	none	none	ventilation fan	1	0	none	vn	M	36	pipe	lateral	none	house	unknown	construction	new	1711
Electrocution (faulty existing wiring)	na	na	na	na	no	no	none	none	none	1	0	none	vn	M	40	none	none	house	unknown	construction	new	1711	
Electrocution (faulty existing wiring)	na	na	na	na	no	yes	none	none	none	1	0	none	vn	M	37	conduit	none	house	formwork	vault	pres-checking work	1771	
Electrocution (faulty existing wiring)	no	na	na	na	no	no	yes	none	none	1	0	none	vn	M	32	sheetrock	lateral scaffold	building	construction	carpenter	new	1751	

Electrocution (power lines)	no	na	na	no	yes	no	crane	project	sling chain	1	0	none	wn	unkno	43	none	none	none	unknown	unknown	gilding equipment	1799	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	1	none	wn	unkno	24.27	ladder	hoisting	ladder	building	unknown	taking ladder down-roofing company	1761	
Electrocution (power lines)	no	na	na	yes	yes	yes	none	none	none	2	0	none	wn	unkno	28.21	poles	wood light	hoisting	none	none	new construction	utility	1731
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	10	0	none	PM	3.45	none	none	none	scaffold	unknown	unknown	electrocuted and then fell	1741	
Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	0	none	PM	24	none	none	none	power poles	power poles	new construction	electrical	1731	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	41	none	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	50	none	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	10	0	none	ground	unkno	49	none	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	28	none	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	10	0	none	wn	unkno	49	none	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	38	power lines	altering	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	AM	11.15	none	none	none	power pole	power pole	repair	electrician	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	43	metal	lateral	scaffold	building	unknown	placing siding	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	36	high voltage cables	altering	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	unkno	2.00	PM	27	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	no	no	none	none	none	1	0	none	wn	unkno	30.28	lateral	none	none	none	none	new construction	electrical	1731
Electrocution (power lines)	no	na	na	no	yes	no	forklift	project	none	1	1	none	wn	unkno	27	pole	hoisting	none	none	none	new construction	electrical	1741
Electrocution (power lines)	no	na	na	no	no	yes	truck	project	8' steel rod	1	0	none	wn	unkno	power line	power line	system	unknown	unknown	power line system	utility KTR	1731	

Electrocution (power lines)	no	na	na	no	yes	none	wire cutters	1	0	none	unkno	M	26	none	none	none	none	none	house	new construction	electrical	1731	
Electrocution (power lines)	no	na	na	no	yes	none	none	1	0	none	unkno	M	34	none	none	none	none	none	power lines	repair	electrical	1731	
Electrocution (power lines)	no	na	na	yes	no	backhoe; project	none	1	0	none	2:00	PM	30	sign	lateral	none	unknown	unknown	unknown	guiding equipment	guiding equipment	1799	
Electrocution (power lines)	no	na	na	no	yes	none	scissors or lift	Project	0	none	unkno	M	39	wiring	lateral	none	department; new store	construction	electrical	1731			
Electrocution (power lines)	no	na	na	no	yes	yes	ditch	1	0	none	7:10	AM	24	earth	lateral	trench	unknown	unknown	unknown	operator equipment	operator equipment	1623	
Electrocution (power lines)	no	na	na	no	yes	none	witch	project	1	0	none	unkno	M	55	33	ladder	hoisting	ladder	house	new construction	electrician	1521	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	1	none	unkno	M	34	conductor	none	power system	power system	house	unknown	glazier	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	truck	project	1	0	none	unkno	M	31	none	none	power system	power system	house	new construction	electrician	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	0	none	unkno	M	31	none	none	none	power system	power system	house	new construction	electrician	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	bucket	project	1	1	none	unkno	M	56	ladder	hoisting	ladder	high voltage system	high voltage system	house	new construction	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	0	none	unkno	M	47	guy wires	lateral	none	utility pole system	utility pole system	house	new construction	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	0	none	unkno	M	27	stinger wire	altering	none	high voltage system	high voltage system	house	new construction	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	0	none	unkno	M	26	concrete utility vault	hoisting	none	utility pole system	utility pole system	house	new construction	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	0	none	unkno	M	29	none	none	unknown	unknown	unknown	unknown	spotted	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	1	0	none	unkno	M	57	electrical lines	lateral	none	power system	power system	house	new construction	electrician	1731

Electrocution (power lines)	yes	na	na	no	yes	yes	manlift	project	none	1	0	none	wn	M	38	ground line	none	none	high voltage system	unknown	electrician	623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	power washer	1	0	none	wn	M	31	none	none	scaffold	unknown	unknown	powerwasher	1721		
Electrocution (power lines)	no	na	na	yes	no	yes	crane	project	digger auger	1	0	none	wn	M	28	none	none	none	none	unknown	spotter	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	M	52	siding/fascia/lateral	none	aluminum	garage utility pole system	new construction	roofer	1521		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	M	27	power pole	altering	none	high voltage system	demolition	unknown	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	M	35	none	none	none	high voltage system	unknown	electrician	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	M	20	steel pipe	hoisting	none	high voltage system	unknown	laborer	1629		
Electrocution (power lines)	no	na	na	yes	no	yes	crane	project	none	1	0	none	wn	M	44	power line	altering	none	high voltage system	demolition	blaster	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	manlift	project	none	1	0	none	wn	M	30	none	none	none	high voltage system	repair	electrician	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	blasting cap and lead wires	1	0	none	wn	M	38	pipe	hoisting	none	high voltage system	demolition	blaster	1629		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	1	0	none	wn	M	22	power lines	altering	none	high voltage system	unknown	electrician	1623		
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	backhoe	project	none	1	0	none	wn	M	38	pipe	hoisting	trench	new construction	spotter	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	aerial lift	project	none	1	0	none	wn	M	31	switch	none	none	power pole	repair	electrician	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	backhoe	project	none	1	1	none	wn	M	35?	pipe	hoisting	none	none	unknown	spotter	1623
Electrocution (power lines)	no	na	na	yes	na	yes	none	none	crane	project	none	1	0	none	wn	M	25	communication tower	hoisting	none	none	unknown	spotter	1623

Electrocution (power lines)	no	na	na	yes	yes	yes	none	none	none	none	1	0	none	AM	M	38	rubber blanket	none	none	high voltage system	repair	electrician	1623	
Electrocution (power lines)	no	na	na	no	no	yes	none	none	none	none	1	0	none	wn	M	29	wires	altering	none	power poles	repair	utility construct	1731	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	pvc saw	1	0	none	wn	M	37	pvc pipe containing circuit	altering	excavation/trench	unknown	unknown	repair	laborer	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	none	1	1	none	MM	23.35	wire	unkno	scaffold	building	new	construction	masons	1741	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	none	1	0	none	wn	M	26	none	hoisting	none	none	new construction	spotter	1521	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	none	1	0	none	PM	M	21	none	none	none	none	unknown	unknown	1623	
Electrocution (power lines)	no	na	na	no	no	no	none	none	none	none	1	0	none	PM	M	28	power lines	altering	none	high voltage system	repair	electrician	1623	
Electrocution (power lines)	no	na	na	no	no	yes	none	none	none	none	1	0	none	wn	M	44	utility pole	lateral	none	power system	unknown	utility construction	1623	
Electrocution (power lines)	no	na	na	no	no	yes	none	none	none	none	1	0	none	wn	M	40	power line	hoisting	none	power pole	repair	electrician	1623	
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	none	1	0	none	fire extinguisher	1	0	unkno	earth	lateral	trench	storm sewer system	new construction	equipment operator	1623
Electrocution (power lines)	no	na	na	no	yes	yes	none	none	none	none	1	0	none	wn	M	32	none	none	none	none	transformer	repair	electrician	1623
Electrocution (power lines)	no	na	na	no	no	yes	yes	yes	yes	yes	1	2	none	wn	M	24	unkno	M.M. 30.37	lateral	scaffold	unknown	unknown	unknown moving scaffold	1623
Electrocution (power lines)	no	na	na	no	no	yes	yes	yes	yes	yes	1	0	none	AM	M	22	none	none	none	none	utility system	unknown	electrician	1623

Electrocution (power lines)	no	na	na	no	no	yes	none	none	none	1	0	2:00	night	residential	electrician	1623	
Electrocution (power lines)	no	na	na	yes	no	excavat	or/track	project	none	1	0	ons	conditi	house	repair		
Electrocution (power lines)	no	na	na	yes	no	hoe	none	none	none	unkno	wn	M	35	tree	hoisting	electrician	
Electrocution (power lines)	no	na	na	yes	partial	no	yes	none	none	unkno	wn	M	34	ductile pipe	lateral	spotter	
Electrocution (power lines)	no	na	na	na	na	yes	none	none	none	1	0	AM	35	high	unknown	1623	
Electrocution (power lines)	no	na	na	na	na	no	no	none	none	1	0	none	33	voltage	system	electrician	
Electrocution (power lines)	no	na	na	na	na	no	no	none	none	10:30	AM	M	30	none	power	communication	
Electrocution (power lines)	no	na	na	na	na	no	no	none	none	1	0	none	30	bolt, guy	lateral	ons worker	
Electrocution (power lines)	no	na	na	no	yes	yes	yes	truck	bucket	hammer,	9:15	AM	M	38	wire	power	1623
Electrocution (power lines)	no	na	na	no	no	yes	yes	truck	project	project	1	0	none	38	system	unknown	electrician
Electrocution (power lines)	no	na	na	no	no	yes	yes	lift	stiff	stiff	1	0	none	37	none	pole	1623
Electrocution (power lines)	no	na	na	no	no	yes	yes	crane	project	none	1	0	wn	M	37	none	telephone
Electrocution (power lines)	no	na	na	no	yes	no	yes	none	none	unkno	wn	M	30	pole	none	repairer	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	none	1	1	none	30	hoisting	none	1799
Electrocution (power lines)	no	na	na	no	yes	yes	yes	ladder	project	none	1	1	none	30	wire	none	1623
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	wire strippers	1	0	none	30	wiring	lateral	1731
Electrocution (power lines)	no	na	na	no	yes	yes	yes	hoist	none	unkno	wn	M	40	20	ladder	unknown	electrical
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	30	metal brace	lateral	new	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	23	dirt	lateral	construction	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	26	none	unknown	roofer	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	23	none	unknown	1542	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	26	none	unknown	operator	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	23	none	unknown	1771	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	23	none	unknown	operator	
Electrocution (power lines)	no	na	na	no	no	yes	yes	hoist	none	unkno	wn	M	23	none	unknown	1791	
Electrocution (power lines)	yes	na	na	no	no	no	no	no	none	unkno	wn	M	45	tags	substation	electrician	

Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	0	none	unkno	lateral	none	building	unknown	painter	1721
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	unkno	lateral	none	house	unknown	unknown-painting ktr	1721
Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	0	none	unkno	lateral	none	unknown	unknown	painter	1721
Electrocution (power lines)	no	na	na	na	no	no	none	none	none	1	0	none	unkno	lateral	none	unknown	unknown	painter	1721
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	unkno	lateral	none	unknown	unknown	painter	1721
Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	0	none	unkno	lateral	none	none	unknown	unknown	1761
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	1	none	6:35	ladder	none	building	unknown	painter	1721
Electrocution (power lines)	na	na	na	na	no	yes	none	none	none	1	0	none	unkno	lateral	none	unknown	unknown	unknown	1721
Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	1	none	1:15	33	none	none	unknown	unknown	1721
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	1	none	46	33	none	none	unknown	unknown	1721
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	unkno	traffic	none	hoisting	none	spotters	1542
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	3:30	52	pipe	hoisting	none	new	1611
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	unkno	traffic	none	hoisting	none	construction	1611
Electrocution (power lines)	no	na	na	na	yes	yes	none	none	none	1	0	none	unkno	lateral	none	highway	unknown	construction	1611
Electrocution (power lines)	na	na	na	na	no	yes	none	none	none	1	0	none	unkno	beams	none	hoisting	none	construction	1611
Electrocution (power lines)	no	na	na	na	no	yes	none	none	none	1	0	none	M.M	33.25	beams	hoisting	none	construction	1611
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	3	water	unkno	M.	31.2	steel well	well	drillers	1799
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	0	none	unkno	M.	1	pipe	none	new	1771
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	0	none	unkno	M.	24	none	none	construction	1799
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	2	0	none	unkno	M.F	25.20	flag pole	hoisting	post office	1799
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	0	none	unkno	M.	31	none	none	unknown	1799

Electrocution (power lines)	no	na	na	no	yes	yes	crane	protect	none	2, 0	none	10:00 AM	M/M 1927	metal roof	hoisting	none	unknown	unknown	unknown	equip operator, unknown	1761	
Electrocution (power lines)	no	na	na	no	yes	no	drilling	project	none	1, 0	none	unkno	M	24	none	none	none	unknown	unknown	driller	1781	
Electrocution (power lines)	no	na	na	no	no	no	drilling	project	none	1, 0	none	4.15	M	22	none	none	none	irrigation line	repair	plumber/pipe fitter	1629	
Electrocution (power lines)	no	na	na	no	no	no	drilling	project	none	1, 0	none	4.00	M	20	earth	altering	none	storm drainage system	new construction	driller	1781	
Electrocution (power lines)	no	na	na	yes	no	no	conveyo	project	none	1, 0	none	unkno	M	39	none	none	none	unknown	unknown	unknown	painter, spotter, equipment operator	791
Electrocution (power lines)	no	na	na	no	yes	no	boom truck	project	screwdriver	1, 0	none	unkno	M	39	none	none	none	unknown	unknown	unknown	painter, spotter, equipment operator	629
Electrocution (power lines)	no	na	na	no	yes	yes	overhea	dr crane	project	none	1, 0	none	unkno	M	26	none	none	unkno	unkno	unkno	guiding crane and spreader bar	1799
Electrocution (power lines)	no	na	na	no	yes	yes	crane	project	none	1, 1	none	unkno	M/M 16.15	none	none	none	none	modular home	new construction	steel workers moving scaffold	1791	
Electrocution (power lines)	no	na	na	no	yes	yes	crane	project	none	1, 2	none	unkno	M/M 29.35	spreader bar	lateral	none	none	modular home	new construction	steel workers moving scaffold	1791	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	none	2, 0	none	unkno	M/M 47.29	scaffold	lateral	scaffold	building	building	unknown	guiding crane and spreader bar	1799	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	none	2, 30	none	unkno	M	42	power poles	hoisting	none	none	repair	electrical level detection system	1731	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	none	1, 0	none	unkno	M	33	wire rope	lateral	none	unkno	unkno	unkno	1799	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	none	1, 0	none	unkno	M	37	metal	lateral	none	unkno	unkno	metal worker	1761	
Electrocution (power lines)	no	na	na	no	yes	yes	boom	project	none	1, 0	none	unkno	M	41	siding	lateral	scaffold	house	unknown	roofer	1761	
Electrocution (power lines)	no	na	na	no	yes	no	boom	truck	project	none	1, 0	none	unkno	M	39	box beam	lateral	none	unkno	unkno	load guider	791

Electrocution (power lines)	no	na	na	na	yes	no	crane	project	none	1	1	none	unkno	M	22:29 rail	lateral	work	unknown	unknown	electrical	KTR	1731					
Electrocution (power lines)	no	na	na	na	no	yes	drill rig	project	none	1	0	none	unkno	M	31	none	none	none	unknown	unknown	equipment	operator	1799				
Electrocution (power lines)	no	na	na	na	no	yes	dozer	project	none	1	0	none	unkno	M	55	none	none	none	pump	station	demolition	operator	1795				
Electrocution (power lines)	no	na	na	na	no	yes	crane	project	none	1	0	none	unkno	M	33	wood	hoisting	none	none	unknown	spotted		1541				
Electrocution (power lines)	no	na	na	na	no	yes	crane	project	none	1	0	none	unkno	M	33	wood	hoisting	none	none	unknown	unknown	(roofers')	1761				
Electrocution (power lines)	no	na	na	na	no	yes	yes	none	none	1	1	none	1:00	PM	M.M.23:22	ladder	lateral	ladder	building	unknown	unknown	equipment	operator	1761			
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	5:30	PM	M	53	none	none	none	unknown	unknown	spotted		1542			
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	unkno	M.M.39:36	scaffold	hoisting	none	none	none	unknown	unknown	electrical	1731				
Electrocution (power lines)	no	na	na	na	yes	no	yes	yes	none	2	0	none	1:20P	M	35	none	none	none	none	unknown	unknown	asbestos	worker	1795			
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	unkno	M	25	none	asbestos	containment	altering	scaffold	building	demolition	painters		1721		
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	unkno	M	37	paint	altering	scaffold	unknown	unknown	overhead	power	repair	electrician	1799		
Electrocution (power lines)	yes-improper	na	na	na	no	yes	none	none	none	1	0	none	unkno	M	40	wire	altering	none	overhead	power	system	sheet metal	worker	1761			
Electrocution (power lines)	no	na	na	na	no	yes	yes	yes	none	2	0	none	1:23P	M.M.40:22	ladder	lateral	ladder	building	unknown	unknown	overhead	power	system	painters		1793	
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	5:15	PM	M	39	Gutter	hoisting	none	building	unknown	unknown	overhead	power	system	1761	
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	3:30	PM	M	39	none	none	none	unknown	unknown	overhead	power	system	painters		1793
Electrocution (power lines)	no	na	na	na	no	no	yes	yes	none	1	0	none	project	lift	none	none	none	none	none	unknown	unknown	overhead	power	system	painters		1793

Electrocution (power lines)	no	na	na	no	no	yes	none	none	none	1	0	wet ground	M	M	29	none	none	none	none	advertisin	g sign	repair	electrical		
Electrocution (power lines)	no	na	na	na	no	yes	none	none	rock drill	0	none	unkno	M	39	none	none	none	none	new construction	equipment operator	roofer	1731			
Electrocution (power lines)	no	na	na	no	no	yes	none	none	project	1	00	10:00 AM	M	26	fascia	lateral	none	house	new construction	equipment operator	roofer	1542			
Electrocution (power lines)	no	na	na	no	no	yes	none	none	project	1	00	11:40 PM	M	M	25.32	ladder	lateral	ladder	warehouse repair	roofer	roofer	1761			
Explosion	na	na	na	no	yes	yes	none	none	none	1	0	unkno	M	M	35	grout	lateral	rubber plug	sewer line	repair	unknown	unknown	1761		
Explosion	na	yes	na	na	no	no	none	none	none	1	0	unkno	M	M	35	grout	lateral	rubber plug	sewer line	repair	unknown	unknown	1771		
Explosion	na	no	na	na	no	yes	none	none	none	1	0	unkno	M	65	gas propane	none	none	none	none	unknown	equipment operator	roofer	1795		
Explosion	no	yes	na	na	yes	yes	none	none	none	1	6	unkno	M	M	21.4	unknown	none	none	none	none	unknown	equipment operator	roofer	1795	
Explosion	na	no	na	na	no	yes	none	none	none	1	1	unkno	M	M	38.33	azide	none	none	none	none	unknown	equipment operator	roofer	1795	
Explosion	na	no	na	na	no	yes	yes	none	none	1	1	unkno	M	M	33.7	unknown-chemicals of some sort	none	none	none	none	none	unknown	equipment operator	roofer	1795
Explosion	no	yes	na	na	yes	yes	none	none	none	1	0	unkno	M	M	61	river rock	lateral	none	none	none	none	none	unknown	roofer	1795
Explosion	na	no	na	na	no	yes	yes	none	none	1	0	unkno	M	M	37	asphalt	none	none	none	none	none	none	none	1761	
Explosion	no	no	na	na	no	yes	yes	none	none	1	0	unkno	M	M	20.41	gasoline	none	none	none	none	none	none	none	1629	
Explosion	no	no	na	na	yes	yes	none	none	none	1	0	unkno	M	M	31	gasoline	none	none	none	none	none	none	none	1799	
Explosion	na	no	na	na	no	yes	yes	none	none	1	0	unkno	M	M	41	gas	none	none	none	none	none	none	none	1794	
Explosion	no	yes	na	na	no	yes	none	none	gasoline powered	1	0	11:56 AM	M	M	24	gasoline	none	none	none	none	gasoline tank	gasoline tank	cutting into tank- cutter	1799	

Explosion	unkno	yes	na	yes	no	none	none	1	4	none	unkno	M, 31,5	circuit breaker	none	undergrou	unknown	electricians	1799		
Explosion	no	yes	na	no	yes	none	none	cutting torch	1	0	poor visibility	unkno	methane or hydrogen	none	sunken	nd vault	welder/cutter	1629		
Explosion	na	no	na	no	yes	none	none	propane heater	1	0	none	unkno	M, 35	propane	none	ship	/diver	1742		
Explosion/Fire	yes	na	na	no	yes	none	none	none	1	0	none	3:40 PM	M, 27	copper wire lateral	none	townhouse	unknown	drywall	1799	
Explosion/Fire	no	yes	na	yes	no	none	none	none	4	0	none	10:15 AM	M, 36:2	ammonia	none	3 phase breaker	for bldg	drywall	1629	
Explosion/Fire	na	yes	na	yes	yes	none	none	acetylene torch	1	1	none	unkno	M, 9	scrubber	none	unknown	electrical	1731		
Explosion/Fire	na	no	na	yes	no	none	none	none	1	0	none	M, 55	methane gas	none	ammonia	scrubber	plumber/pipes	1541		
Explosion/Fire	na	yes	na	no	yes	none	none	none	1	1	none	M, 33	propane vapors	none	sewage pumping	plant	plumber/pipes	1623		
Explosion/Fire	na	no	na	yes	yes	no	none	none	1	0	none	unkno	M, 30	excavation	none	excavation	repair	plumber/pipes	1623	
Explosion/Fire	na	yes	na	no	no	yes	none	none	1	0	none	unkno	M, 55	methane gas	none	house	unknown	unknown	1711	
Explosion/Fire	na	yes	na	no	no	yes	none	none	1	0	none	unkno	M, 33	propane vapors	none	confined space	gal steel storage tank	welder/cutter	1629	
Explosion/Fire	na	improp	method	na	na	yes	yes	welding equipment	2	0	none	10A M	60,2	No 6 Fuel Oil	none	unknown	unknown	electrical ktr-welders	1731	
Explosion/Fire	na	yes	na	yes	yes	yes	none	none	1	1	none	12:00 PM	M, 23:21	chemical vapors	none	2000 gal tank	repair	welders/cutter	1623	
Explosion/Fire	na	yes	na	yes	yes	yes	none	none	1	3	none	unkno	M, 34	32:34	paint, paint thinner	none	house	unknown	painters	1721
Explosion/Fire	na	no	na	no	yes	yes	yes	Dozer, Scraper project ripper	2	0	none	unkno	M, 58:46	earth lateral	none	natural gas line	unknown	equipment operators	1611	
Fall from elevation	na	na	>6'	no	no	yes	none	none	1	0	rain	7:30 AM	M, 35	tarp	lateral	none	new building	construction	new	1751
Fall from elevation	na	na	>6'	no	no	yes	none	none	1	0	none	unkno	M, 65	none	none	scalfold	pier	supervisor	1542	

Fall from elevation	na	na	>6' no	no	unknown	none	none	1	0	9:49 AM	M	24	none	scaffold	house	unknown	roofer	1521		
Fall from elevation	na	na	>6' use	improper	unknown	none	none	1	0	unkno	M	47	none	none	house	new construction	roofer	1521		
Fall from elevation	no	no	>6' no	yes	none	none	none	1	0	none	wn	42	none	none	ladder; temp platform	new construction	electrical	1731		
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	51	none	none	scaffold	building	unknown	roofer	1521	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	57	conduit	altering	ladder	building	unknown	electrical	1731	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	12:00 PM	M	54	wood	lateral	planks	building	new construction	carpenter	1542	
Fall from elevation	unk	no	>6' no	yes	none	none	none	1	0	unkno	M	42	wood	none	ramp	unknown	unknown	unknown	1541	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	9:45 AM	M	46	roofing	material	lateral	none	building	demolition	demolisher	1541
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	29	none	none	power pole	unknown	electrician	1623		
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	52	none	none	ladder/scaff	old	unknown	unknown	1542	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	9:30 AM	M	58	none	none	none	building	new construction	roofer	1541	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	33	none	none	ladder	unknown	unknown	unknown	1542	
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	unkno	M	60	none	none	house	unknown	roof work	1521		
Fall from elevation	na	na	>6' no	yes	none	none	none	1	0	4:30 PM	M	30	roof	material	lateral	none	building	new construction	steel worker	1542

Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	38	none	none	building	unknown	unknown	1542		
Fall from elevation	na	na	>6'	no	no	none	none	none	1	0	none	unkno	M	46	none	none	ladder	house	new construction	painter	1521	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	53	none	none	plank	hospital	renovation	carpenter	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	8:00P	M	39,37	none	none	personnel	Kingdome repair	sandblasting/painting	line	1721	
Fall from elevation	na	na	>6'	no	yes	no	crane	project	2	0	none	unkno	M	39	none	none	platform	telephone	unknown	installation-equip	1731	
Fall from elevation	na	na	>6'	no	no	digger	derrick	truck	project	none	1	0	none	wn	M	37	none	none	system	unknown	1542	
Fall from elevation	na	na	>6'	no	no	no	no	no	1	0	none	unkno	M	39	staircase	hoisting	none	building	repair	spotter	1542	
Fall from elevation	na	na	>6'	no	no	no	no	no	1	0	none	unkno	M	226	none	none	platform	building	unknown	carpenter	1542	
Fall from elevation	na	na	>6'	no	yes	yes	scissor	lift	project	none	0	1	none	wn	M	?	vent pipe	lateral	unknown	unknown	1731	
Fall from elevation	na	na	>6'	no	no	yes	yes	yes	project	none	1	0	none	8:00A	M	46	gutters	lateral	none	unknown	from hole in floor	1731
Fall from elevation	na	na	>6'	no	no	yes	yes	yes	none	1	0	none	unkno	M	41	none	electric cable	lateral	none	unknown	roofers	1721
Fall from elevation	na	na	>6'	no	yes	yes	none	none	none	1	0	none	8:15	M	53	mailbox	lateral	none	new construction	roofer	1521	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	21,23	none	none	garage	unknown	unknown	1731	
Fall from elevation	na	na	>6'	no	yes	yes	unknown	none	none	3	0	wn	unkno	M	18	none	none	tower	unknown	1	1731	
Fall from elevation	na	na	>6'	no	yes	yes	work	platform	project	none	2	0	none	MM	37,36	none	none	none	building	unknown	electricians	1522
Fall from elevation	na	na	1-6'	no	yes	no	in- license	pickup truck	none	1	0	none	unkno	M	24	none	none	none	none	unknown	electrical tr	1731

Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	16	roof material	none	none	building	new construction	roofer	1541
Fall from elevation	na	na	>6' no	no	yes	elevator	project	none	none	1	0	none	unkno	37	none	none	none	building	elevator installation/re-pair	1541	
Fall from elevation	na	na	>6' no	improper use	no	yes	none	none	none	1	0	none	unkno	23	none	none	none	electrical pole	unknown	electrical	1731
Fall from elevation	na	na	>6' no	no	no	none	none	none	none	1	0	none	unkno	39	none	none	none	power pole	repair	cable tv Ktr	1731
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	31	none	none	none	house	new construction	roofer	1531
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	52	none	none	none	fuel oil tank	renovation	electrical	1731
Fall from elevation	na	na	>6' no	no	no	yes	none	none	none	1	0	none	unkno	38	metal	lateral	none	building	new construction	roofers/metal workers	1541
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	none	1	0	none	unkno	33	wood	lateral	ladder	building	new construction	carpenter	1541
Fall from elevation	na	na	>6' no	no	yes	yes	none	none	none	1	0	none	unkno	32	roofing material	lateral	opening	manufacturing plant	new construction	metal workers	1541
Fall from elevation	na	na	unk	no	no	yes	none	none	none	1	0	none	unkno	29	side awning	lateral	ladder	house	demolition	awning removal	1522
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	24	metal duct	none	platform	unknown	unknown	metal worker	1541
Fall from elevation	na	na	>6' no	no	yes	none	none	saw	none	1	0	none	unkno	38	exterior sheeting	lateral	opening	house	new construction	Manual Mat Handling-no fall protect	1521
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	none	1	0	none	unkno	41	wood	hoisting scaffold	house	new construction	carpenters	1521	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	38	unknown	lateral	none	building	unknown	electrical Ktr	1731

Fall from elevation	na	na	yes-failed	no	none	none	none	none	none	10:00	AM	M	36	none	none	none	high voltage system	repair	electrician	1623			
Fall from elevation	na	na	>6'	no	yes	no	none	none	none	unkno	wn	M	31	none	none	none	supervisor	unknown	unknown	1542			
Fall from elevation	na	na	unk	no	yes	no	none	none	none	1:30	PM	M	53	wood	lateral	scaffold	unknown	unknown	unknown	1721			
Fall from elevation	na	na	wn	no	yes	none	none	none	none	9:20A	AM	M	58	none	none	ladder	unknown	unknown	painter/glazier	1731			
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1:0	none	M	41	2:00	PM	paint and tools	hoisting	scaffold	building	1721			
Fall from elevation	na	na	>6'	no	no	no	none	none	none	1:0	rain	PM	M	41	11:15	AM	38:39	none	building	1721			
Fall from elevation	na	na	>6'	no	yes	no	none	none	none	1:1	none	AM	M	57	none	none	none	building	unknown	painter	1721		
Fall from elevation	na	na	>6'	no	yes	yes	none	none	none	1:0	none	wn	M	57	none	none	none	building	unknown	painter	1721		
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1:0	none	PM	M	25	5:45	air net/farp	lateral	none	building	unknown	painter	1721	
Fall from elevation	na	na	>6'	na	yes	yes	none	none	none	1:1	none	AM	M	38:18	9:00	PM	gin pole	hoisting	none	radio tower	unknown	painter	1721
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1:0	none	wn	M	26	10:00	PM	tap shroud	hoisting	scaffold	water tower	unknown	communications workers	1623
Fall from elevation	na	na	impro	per	use	no	no	no	no	1:0	none	wn	M	51	unkno	wn	none	none	building	unknown	unknown	1721	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1:0	none	wn	M	44	unkno	wn	none	none	powerplant	unknown	unknown	1711	
Fall from elevation	na	na	wn	no	yes	no	yes	none	none	1:0	none	wn	M	36	unkno	wn	plywood	lateral	none	bridge	new construction	hvac worker	1622
Fall from elevation	na	na	>6'	use	no	no	no	no	no	1:0	none	AM	M	45	11:30	AM	roof material	lateral	opening	building	rehab	carpenter	1542
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1:0	none	AM	M	45	1:30	PM	roof material	lateral	opening	building	rehab	carpenter	1542

Fall from elevation	na	na	>6	no	no	no	bucket truck	project none	1	0	none	unkno	M	33	none	none	utility pole system	unknown	electrician	1623	
Fall from elevation	na	na	>6	yes	yes	no	none	cone along	1	0	none	9:00 AM	M	22	lower	hoisting none	communicat	new	construction	unknown	1623
Fall from elevation	na	na	>6	no	no	no	none	none	1	0	none	unkno	M	49	concrete forms	lateral	walkway	bridge	new construction	carpenter	1622
Fall from elevation	na	na	>6	no	yes	yes	none	ply bar	1	0	none	unkno	M	31	none	none	building	repair	working on roof parapet	1741	
Fall from elevation	na	na	1-6 feet	no	yes	no	pickup truck	project none	1	0	none	unkno	M	41	refrigerators	lateral	none	condominium complex	unknown	assisting in hauling operations	1711
Fall from elevation	na	na	>6	no	yes	yes	flatbed truck	project none	1	0	none	unkno	M	61	containers	lateral	none	none	bridge deck	securing load	1711
Fall from elevation	na	na	>6	no	no	no	scissor lift	project none	1	0	none	unkno	M	33	none	none	none	bridge	unknown	unknown	1611
Fall from elevation	na	na	>6	no	yes	no	scissor lift	project none	1	1	none	9:00 AM	M?	54?	none	none	catwalk	theater	unknown	unknown	1711
Fall from elevation	na	na	>6	no	no	yes	no	no	1	0	none	7:48 AM	M	22	wood	lateral	wood beam	building	new construction	carpenter	1542
Fall from elevation	na	na	>6	yes	no	yes	no	no	1	0	none	9:30 AM	M	48	stone	none	ladder	building	repair	plumber/pipe fitter	1711
Fall from elevation	na	na	>6	yes	no	yes	no	none	1	0	none	unkno	M	54	wood	none	none	building	new construction	carpenter	1542
Fall from elevation	na	na	>6	no	no	yes	no	none	1	0	none	unkno	M	60	none	none	ladder	house	repair	hvac mechanic	1711
Fall from elevation	na	na	9' or less	no	no	yes	none	none	1	0	none	unkno	M	27	wood	none	concrete forms	unknown	new construction	carpenter?	1611
Fall from elevation	na	na	>6	no	no	yes	none	none	1	0	none	2:50 PM	M	22	none	none	none	warehouse; repair	roof work	1542	

Fall from elevation	na	na	1-6'	no	yes	none	none	none	1	0	none	unkno	wn	M	26	none	none	step ladder	unknown	unknown	welding fire watch	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	wn	M	25	corner plate	lateral	floating scaffold	steel bridge	new	ironworker	1622	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	8.37		M	55	none	none	building	construction	new	carpenter	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	2.50		M	51	wood	lateral	roof opening	building	unknown	metal worker	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	10:30		M	59	electrical clamp	lateral	ladder	building	new	construction electrical	1731	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	32	none	none	building	rehab	unknown	new	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	17	none	none	building	construction	new	roofer	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	60	forms	none	scaffold	crypt power	new	carpenter	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	28	none	none	ladder and platform	communication tower	new	structural metal worker	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	24	none	none	none	house	new	communications worker	1623	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno		M	19	drywall	altering	none	scaffold	unknown	drywall installer	1521	
Fall from elevation	na	na	>6'	no	yes	none	none	sander	1	0	none	unkno		M	55	ac duct	none	none	ladder	unknown	new	construction drywall	1731
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	11:30		M	54	none	none	none	none	none	auditorium	1542	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	1	none	8:00		AM	M	48.41	none	none	none	new construction	drywall	1542	

Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	wn	unkn	41	rooftusses	lateral	none	house	new	construction	roofer	1521	
Fall from elevation	na	na	no	yes	none	none	none	paint brush	1	0	none	wn	unkno	53	Paint	lateral	none	wharf	repair	Painter	1721		
Fall from elevation	na	na	>6'	yes	no	none	none	none	1	0	none	PM	230	51	none	none	building	unknown	laborer	laborer	1542		
Fall from elevation	na	na	improper	per	use	yes	yes	none	none	1	0	none	AM	54	none	none	scatfold	building	unknown	painters	painters	1721	
Fall from elevation	na	na	>6'	no	no	yes	none	none	trowel	1	0	none	AM	63	grout	none	scatfold	none	new	construction	mason	new	1542
Fall from elevation	na	na	1.6'	no	yes	none	none	none	1	0	none	wn	unkno	63	insulation	lateral	step ladder	building	unknown	insulator	insulator	1542	
Fall from elevation	na	na	>6'	no	no	yes	none	none	1	0	none	wn	unkno	42	none	none	scatfold	building	unknown	laborer	laborer	1629	
Fall from elevation	na	na	unkno	wn	no	yes	none	none	1	0	none	wn	unkno	31	snow	lateral	ladder	house	repair	roof work	snow removal	1521	
Fall from elevation	na	na	improper	use	no	yes	none	none	1	0	none	wn	unkno	25	none	none	none	bridge	unknown	sandblaster	sandblaster	1721	
Fall from elevation	na	na	>6'	no	no	yes	none	none	spray paint	1	0	none	wn	43	none	none	gin pole	none	new	warehouse	construction	painters	1721
Fall from elevation	na	na	yes-failed	no	no	yes	none	none	1	0	none	wn	unkno	41	none	none	hoisting	none	communications	new	construction	communications worker	1623
Fall from elevation	na	na	>6'	yes-not	no	yes	none	none	aerial lift	1	0	none	AM	32	rope	hoisting	none	unknown	unknown	laborer	laborer	1623	
Fall from elevation	na	na	improper	per	use	yes	yes	none	bucket	project	none	1	0	none	wn	unkno	47	beams	lateral	paper mill	unknown	coating (KTR)	1721
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	AM	28	none	none	ladder	house	new	construction	carpenter	new	1521

Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	M	35	none	none	none	building (slight)	unknown	roofer?	1761		
Fall from elevation	na	na	>6	no	yes	no	none	none	none	1	1	none	unkno	wn	M	48.7	none	none	scaffold	house	unknown	carpentry (putting in window trim)	1761	
Fall from elevation	na	na	>6	no	no	no	none	none	none	1	0	frost	unkno	wn	M	34	window dormer	altering	none	building	construction	carpenter	1751	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	23	insulation lateral	none	building	unknown	roofer	1761		
Fall from elevation	na	na	>6	no	yes	yes	none	none	none	1	0	none	unkno	wn	M	40	metal roof decking	material	hoisting	steel trusses	building	new	construction steel worker	1791
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	55	skylight	lateral	none	building	renovation	steel worker	1791	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	26	none	none	house	repair	gutter cleaning	1761		
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	19	none	none	building	sky light	unknown (roofer?)	1761		
Fall from elevation	na	na	>6	no	yes	yes	none	none	none	1	0	none	unkno	wn	M	40	skylight covers	lateral	none	building	unknown	roofer	1761	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	25	sheeting	lateral	none	building	unknown	roofer	1761	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	53	none	none	none	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	39	none	none	none	building	repair	roofer	1761	
Fall from elevation	na	na	>6	no	no	yes	none	none	none	1	0	none	unkno	wn	M	76	none	none	ladder	building	unknown	courier for company	1761	
Fall from elevation	na	na	>6	no	yes	no	none	none	none	1	0	none	unkno	wn	M	21	equipment	hoisting	none	building	unknown	unknown-roofer?	1761	

Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	corrugated	lateral	none	building	unknown	steel worker
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	5:00	roof deck	lateral	none	rain barrier	over	roofer
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	PM	52	none	none	openings in	building	construction
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	21	none	none	building	unknown	roofer
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	9:45	wood	altering	none	building	new	steel worker
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	AM	24	wood	altering	elevator	new	roofer
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	47	concrete	altering	shaft/build	new	carpenter
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	wn	23	metal	altering	construction	concrete	1751
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	35	roofing	lateral	none	building	new
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	PM	56	none	none	stepladder	building	unknown
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	34	steel grating	lateral	none	unknown	carpenter
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	PM	35	wood	lateral	none	building	new
Fall from elevation	na	na	>6'	no	yes	yes	none	1	0	none	unkno	34	none	none	ladder	house	unknown
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	36	none	none	scaffold	barn	carpenter?
Fall from elevation	na	na	>6'	no	yes	no	none	1	1	none	unkno	21	none	none	altering	none	carpenter?
Fall from elevation	na	na	>6'	no	yes	no	none	1	0	none	unkno	34	wood	insulation	and metal	house	carpenter
Fall from elevation	na	na	>6'	no	yes	no	none	1	0	none	unkno	21	wood	altering	none	new	installing a
Fall from elevation	na	na	>6'	no	yes	no	none	1	0	none	unkno	34	decking	lateral	none	building	new
Fall from elevation	na	na	>6'	no	no	yes	none	1	0	none	unkno	18	wood	altering	none	house	steel worker
Fall from elevation	na	na	>6'	no	no	yes	none	1	0	none	PM	30	wood	altering	none	new	construction

Fall from elevation	na	na	>6'	no	yes	yes	forklift	project	pneumatic	compressor, generator for	1	0	none	unkno	M	39	plywood, person, equipment	building	new construction	new	unknown	unknown- carpenter?	1751	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	35	none	none	house	building	new	construction	carpenter	1751
Fall from elevation	na	na	>6'	no	yes	no	forklift	project	none	1	0	none	10.30	M	22	bar joists	hoisting	none	house	building	new	construction	steel worker	1791
Fall from elevation	na	na	>6'	no	no	no	none	none	none	none	1	0	none	unkno	M	36	shingles	hoisting	lateral	house	repair	roofer	1761	
Fall from elevation	na	na	>6'	no	no	no	none	none	none	none	1	0	none	unkno	M	28	steel roof decking	none	none	department store	new	construction	steel worker	1791
Fall from elevation	na	na	>6'	no	yes	no	none	none	none	none	1	0	none	unkno	M	3.30	felt, paper, nailers and hurricane clips	none	none	building	new	construction	carpenter installing a roof	1751
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	46	cornice lateral	none	none	work platform	house	unknown	carpenter	1751
Fall from elevation	na	na	>6'	no	yes	yes	none	none	none	none	1	0	none	unkno	M	37	lateral ladder	none	none	work	house	unknown	carpenter	1751
Fall from elevation	na	na	>6'	no	no	no	none	none	none	none	1	0	none	unkno	M	28	cornice lateral	none	none	work platform	house	unknown	carpenter	1751
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	34	scatfold	hoisting	scaffold	silo	unknown	unknown	carpenter	1791
Fall from elevation	na	na	>6'	no	no	no	none	none	none	none	1	0	none	unkno	M	24	none	none	none	structure	unknown	steel worker	1791	
Fall from elevation	na	na	>6'	no	yes	yes	none	none	none	none	1	0	none	unkno	M	23	wood	altering	ladder	unknown	unknown	unknown	carpenter	1751
Fall from elevation	na	na	1-6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	37,33	steel decking	hoisting	none	building	new	construction	steel workers	1791
Fall from elevation	na	na	1-6'	no	yes	yes	none	hoisting equipment	project	none	2	0	none	unkno	M	19	wood	altering	unknown	building	new	construction	carpenter	1751
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	44	tupc	altering	none	truck	new	construction	terminal	1791
Fall from elevation	na	na	>6'	no	no	yes	semitrail	project	none	1	0	none	unkno	M	44	none	none	none	building	new	construction	carpenter	1751	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	none	1	0	none	unkno	M	44	none	none	none	truck	new	construction	adhere	1791

Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	11.50	40	wood	altering	none	house	new construction	carpenter	1751	
Fall from elevation	na	na	>6'	no	yes	no	lull	project	none	1	1	none	unkno	M	48.25	people	hoisting	none	building	unknown	1751
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	47	none	none	floor	opening	building	new construction	carpenter
Fall from elevation	na	na	>6'	no	yes	yes	impro	per	no	none	none	3.57	M	26	bolts	altering	none	building	new construction	steel worker	
Fall from elevation	na	na	>6'	no	yes	yes	yes	yes	none	1	0	none	5.15	M	31	metal decking	lateral	none	building	new construction	steel worker
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	34	skylights	lateral	none	building	new construction	steel worker	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	50	none	none	building	unknown	construction	roofer	
Fall from elevation	na	na	>6'	no	yes	none	none	none	some	0	none	unkno	M	30	none	none	building	unknown	construction	roofer	
Fall from elevation	na	na	>6'	no	yes	yes	yes	yes	tower boom	project	1	0	none	unkno	M	39	none	none	ladder	house	repair
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	9.00	M	39	none	none	none	building	unknown	roofer	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	44	none	none	none	building	unknown	roofer	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	3.00	M	57	none	none	none	temporary platform	warehouse	construction	welder
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	30	roof tiles	lateral	none	building	unknown	roofer	
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	unkno	M	53	bridge forms	lateral	none	bridge	unknown	construction	worker?
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	3.00	M	26	truss	none	none	building	unknown	construction	worker?
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	10.00	M	23	metal decking	lateral	none	roof opening	building	new construction	metal worker
Fall from elevation	na	na	>6'	no	yes	none	none	none	1	0	none	3.00	M	26	truss	none	none	building	unknown	construction	metal worker

Fall from elevation	na	na	>6'	no	yes	none	none	wheel barrow	1	0	none	unkno	material	lateral	none	building	skylight	repair	roofing	1761	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	M	22	material	lateral	none	new	construction	unknown	1771	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	M	33	none	none	building	new	construction	roofer	1761	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	M	60	none	none	ventilation	opening	building	new	construction	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	11:00	AM	23	wood forms	(ng)	scaffold	silo	construction	construction	1771	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	11:20	AM	32	wood	altering	cover	skylight	construction	trade?	1771	
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno	M	21	wood	altering	none	building	repair	roofer	1761	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	10:25	AM	58	none	none	ladder	house	repair	roofer	1761	
Fall from elevation	na	na	1-6'	no	no	none	none	1	0	none	unkno	M	44	none	none	concrete	formwork	building	new	construction	
Fall from elevation	na	na	>6'	yes	per	none	none	1	0	none	unkno	M	46	none	none	none	none	building	hand	packer/packer	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	M	34	rain gutters	altering	ladders	new	construction	builder (?)	1771	
Fall from elevation	na	na	>6'	no	no	yes	none	solder kettle,	1	0	none	unkno	M	21	concrete	forms	lateral	highway	unknown	unknown-carpenter?	1771
Fall from elevation	na	na	>6'	no	no	yes	none	solder iron	1	0	none	unkno	M	31	none	none	building	construction	street metal	761	
Fall from elevation	na	na	1-6'	no	yes	no	yes	pickup	1	0	none	7:30	AM	21	concrete	forms	lateral	highway	unknown	concrete	1771
Fall from elevation	na	na	>6'	no	no	yes	no	truck	1	0	none	2:30	PM	33	none	none	building	unknown	roofer	1761	
Fall from elevation	na	na	>6'	no	no	yes	yes	reach	1	0	none	unkno	M	39	none	none	sign	repair	electrical	1731	
Fall from elevation	na	na	>6'	no	no	yes	none	boom	1	0	none	10:15	AM	39	none	skylight	cover	building	concrete cutting company	1771	

Fall from elevation	na	na	>6' no	yes	no	none	none	none	none	activated driver and electric	1	0	none	8:00 AM	M 44	none	none	suspension scaffold	silo	unknown	waterproofing the bin	(177)	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	9:40 AM	M 28	roof	shingles	hoisting ladder	building	unknown	roofing	1761		
Fall from elevation	na	na	>6' no	yes	no	none	none	none	none	1	0	none	11:00 AM	M 25	steel	lateral	none	store	new construction	steel worker	1791		
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	none	1	0	none	1	0	none	1	0	none	building	repair	roofer	1761	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 41	insulation	none	building	repair	roofer	1761		
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	none	1	0	none	unkno	wn	M 23	shingles	lateral	trash chute	building	repair	roofer	1761	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 23	none	none	roof	opening	warehouse	unknown	roofer	1761
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 29	material	lateral	none	building	unknown	roofer	1761	
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	none	1	0	none	unkno	wn	M 41	none	none	monorail system for new	dam	construction	steel worker	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	10:22 AM	M 22	none	none	none	none	warehouse	construction	roofer	1761	
Fall from elevation	na	na	>6' no	no	unknown	none	none	none	none	1	0	none	9:20 AM	M 22	none	none	none	clock	cross braces tower	unknown	unknown	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 40	cross braces	lateral	cross braces	tower	unknown	unknown	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 56	siding	lateral	none	house	unknown	sider	1761	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	unkno	wn	M 25	leads	lateral	none	building	new construction	steel worker-welder	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	none	1	0	none	2:30 PM	M 48	metal decking	altering	none	building	repair	roofing/sheet metal work	1761		
Fall from elevation	na	na	>6' no	yes	no	yes	none	none	none	1	0	none	3:20 PM	M 9	M,M, 20,18,19,1 steel columns	none	none	steel structure	new construction	steel workers	1791		

Fall from elevation	na	>6	no	yes	none	none	motorized conveyor	1	0	wet surface	AM	M	34	roof shingles	hoisting, none	building	new construction	roofing	1761			
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	45	sheet metal decking	lateral	none	building	new construction	sheet metal worker-roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	38	welding lead	none	none	building	new construction	steel worker	1791		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	33	10:45 AM	lateral	none	building	roof-snow removal	1761			
Fall from elevation	na	>6	no	yes	none	none	none	1	0	snow	AM	M	33	snow	lateral	none	building	new construction	roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	PM	M	62	5:00 PM	lateral	plastic	skylight opening	new construction	roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	36	concrete	lateral	none	building	repair	roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	42	none	none	none	light openings	building	sheet metal worker-roof	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	19	roof shingles	lateral	none	building	unknown	roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	33	a/c vents	lateral	none	ladder	building	unknown	unknown-sheet metal?	1761	
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	53	gravel	lateral	none	cover	skylight	building	unknown	roofer	1761
Fall from elevation	na	>6	no	yes	none	none	shovel	1	0	none	wn	M	26	metal roof sheets	lateral	none	warehouse	new construction	metal worker	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	47	roof shingles	lateral	none	fall protection system	fall	protection	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	39	roofing felt	lateral	none	house	unknown	roofer	1761		
Fall from elevation	na	>6	no	yes	none	none	none	1	0	none	wn	M	39	roofing felt	lateral	none	house	unknown	roofer	1761		

Fall from elevation	na	na	improper use	yes	no	none	none	circular abrasive saw	1	0	none	unkno wn	M	33	none	none	sing point suspension scaffold	building	unknown	unknown	1791	
Fall from elevation	na	na	>6' no	yes	no	none	none	1	0	none	2.35	unkno wn	M	29	brick	lateral none	parking garage	repair	repair	mason	1741	
Fall from elevation	na	na	>6' no	no	no	none	none	1	0	none	unkno wn	M	55	none	none	work platform	unknown	unknown	unknown	new hvac	1742	
Fall from elevation	na	na	>6' no	yes	yes	none	none	1	0	none	1.45	unkno wn	M	37	none	none	building	construction	mechanic	new hvac	1711	
Fall from elevation	na	na	>6' no	no	no	none	none	0	1	none	unkno wn	M	57	concrete	lateral none	concrete retaining wall	work	repair	operator	operator	1629	
Fall from elevation	na	na	unkno wn	no	no	none	none	0	1	none	unkno wn	M	48	hay	lateral none	roof	openings	road	unknown	operator	1623	
Fall from elevation	na	na	1.61 no	yes	no	none	none	0	1	none	unkno wn	M	42	astic	lateral none	hoisting	building	new construction	steel worker	steel worker	1799	
Fall from elevation	na	na	>6' no	yes	no	none	none	1	0	none	unkno wn	M	33	none	none	building	unknown	unknown	unknown	new hvac	1799	
Fall from elevation	na	na	yes-improper per	yes	no	none	none	project pulley, rope	1	1	none	unkno wn	M	36?	people	hoisting	building	unknown	unknown	unknown	1799	
Fall from elevation	na	na	>6' no	no	yes	none	none	project pulley, rope	1	1	none	unkno wn	M	33	none	none	building	unknown	truck driver	truck driver	1799	
Fall from elevation	na	na	>6' no	yes	no	none	none	project pulley, rope	1	1	none	unkno wn	M	26	none	none	scaffold	unknown	construction	new hvac	1741	
Fall from elevation	na	na	unkno wn	no	yes	none	none	project pulley, rope	1	1	none	unkno wn	M	30	wood	lateral	scaffold	building	unknown	building	work	1741
Fall from elevation	na	na	>6' no	yes	no	none	none	project pulley, rope	1	1	none	unkno wn	M	28	none	none	scaffold	unknown	unknown	scaffold	scaffold	1799
Fall from elevation	na	na	unkno wn	yes	no	none	none	project pulley, rope	1	1	none	unkno wn	M	38	banners	lateral none	civic center	unknown	erector	erector	erector	1799
Fall from elevation	na	na	>6' no	yes	no	none	none	forklift	1	1	none	unkno wn	M	40.45	none	none	personnel basket	unknown	unknown	unknown	new hvac	1542

Fall from elevation	na	na	>6'	no	yes	no	none	none	none	1	0	none	unkno	M	38	softils	none	work platform	garage	new construction	carpenter	1751	
Fall from elevation	na	na	>6'	no	yes	yes	none	none	none	1	0	none	unkno	M	22	control wire	altering	none	air plenum	unknown	electrical	1731	
Fall from elevation	na	na	1-6'	no	yes	none	none	none	none	1	0	none	2:00	M	48	light bulbs	hoisting	stepladder	electric building	repair	electrical	1731	
Fall from elevation	na	na	>6'	no	no	no	none	none	none	1	0	none	unkno	M	26	wood	lateral	adders	vertical wall	building exterior	siding installers	761	
Fall from elevation	na	na	>6'	yes	no	yes	none	none	none	1	0	none	unkno	M	61	work platform	hoisting	form	building	new construction	spotter	1622	
Fall from elevation	na	na	>6'	yes	no	yes	none	none	none	1	0	none	unkno	M	31	mortar	lateral	scaffold	building	new construction	mason	1741	
Fall from elevation	na	na	>6'	no	no	no	none	none	none	1	0	none	unkno	M	48	none	none	scaffold	suspension	building	repair	parapet repair	
Fall from elevation	na	na	>6'	no	no	no	none	none	none	1	0	none	unkno	M,M	26?	none	none	scaffold	building	renovation	building	on roof	
Fall from elevation	na	na	>6'	yes	no	yes	no	none	none	1	2	none	unkno	M	29	1:00	scaffold frame	hoisting	scaffold	unknown	unknown	scaffold dismantling	1741
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	29	none	none	rof	building	unknown	unknown	1743	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	11:30	M	29	none	none	opening	building	new	construction	plumber	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	52	copper tubing	lateral	none	building	new	mason-unloading	construction block	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	52	concrete block	lateral	scaffold	building	new	mason	1741	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	57	concrete block	lateral	scaffold	building	unknown	building	unknown	
Fall from elevation	na	na	>6'	no	no	yes	none	none	none	1	0	none	unkno	M	45	none	none	none	none	unknown	upcrown	1741	

Fall from elevation	na	>6'	no	yes	yes	aerial lift	project	none	1	1	none	8:00 AM	M/M(48.4)	sheetrock	lateral	none	movie theater	new construction	drywall	1742		
Fall from elevation	na	na	>6'	no	no	none	none	none	1	0	none	AM	M	44	brick	lateral	scaffold	building	unknown	mason	1741	
Fall from elevation	na	na	>6'	yes	no	none	none	none	unkno	0	none	AM	M	53	none	none	boatswain chair	chimney	insulating	chimney	1741	
Fall from elevation	na	na	>6'	yes	no	none	none	none	unkno	1	0	none	AM	M	25	none	none	boatswain chair	unknown	open air parts	1741	
Fall from elevation	na	na	>6'	no	yes	none	none	none	unkno	1	0	none	AM	M	21	wood	lateral	scaffold	pre-engineer new building	construction	unknown	1541
Fall from elevation	na	na	1.6'	no	no	yes	none	none	unkno	1	0	none	AM	M	21	wood	lateral	scaffold	house	construction	new	1541
Fall from elevation	na	na	>6'	no	no	yes	none	none	unkno	1	0	none	PM	M	21	none	none	building	repair	electrician	electrician helper lost	1741
Fall from elevation	na	na	1.6'	no	no	yes	none	none	unkno	1	0	none	AM	M	28	none	none	stepladder	building	unknown	balance	1731
Fall from elevation	na	na	>6'	no	no	yes	none	none	unkno	1	0	none	AM	M	28	none	none	stepladder	building	unknown	balance	1741
Fall from elevation	na	na	1.6'	no	no	yes	none	none	unkno	1	0	none	AM	M	35	none	none	stepladder	building	unknown	balance	1741
Fall from elevation	na	na	>6'	no	no	yes	none	none	unkno	1	0	none	AM	M	35	none	none	stepladder	building	unknown	balance	1741
Fall from elevation	na	na	>6'	no	no	yes	none	none	unkno	1	0	none	AM	M	44	none	none	stepladder	building	unknown	balance	1741
Fall from elevation	na	na	>6'	no	yes	no	none	none	unkno	1	1	none	AM	M	40	paint	altering	ladders	canopy	unknown	roofer	1741
Fall from elevation	na	na	>6'	no	no	no	none	none	unkno	1	0	none	AM	M	62	load, person	lateral	none	none	painting	1741	
Fall from elevation	na	na	>6'	no	no	no	none	none	unkno	1	0	none	AM	M	44	none	none	building	unknown	supervisor	1795	
Fall from elevation	na	na	1.6'	no	yes	no	forklift	project	none	1	0	none	AM	M	63	roofing	caulk	altering	ladder	building	repair	1741
Fall from elevation	na	na	>6'	no	yes	yes	none	none	unkno	1	0	none	AM	M	41	none	none	ladder	fiberglass storage tank	unknown	carpenter	1751
Fall from elevation	na	na	improper use	yes	yes	yes	none	none	unkno	1	0	none	AM	M	63	caulk	altering	ladder	building	repair	roof repairs	1741
Fall from elevation	na	na	>6'	no	no	yes	none	knife	1	0	none	AM	M	63	caulk	altering	ladder	fiberglass storage tank	unknown	plumber/pipe filter	1711	

Fall from elevation	na	na	unk no wn	no	yes	none	none	1	0	none	unkno wn	M	59	none	none	hoisting flown ing	silo	demolition	farm worker	1742	
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno wn	M	17	silo	wood, extension cord	altering openings	store	new construction	carpenter	1795	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	37	none	none	roof openings	ladder	silo	demolition	farm worker	1711
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	52	none	none	hole in ground	none	unknown	unknown	1711	
Fall from elevation	na	na	1-6 feet	no	yes	none	none	1	0	none	unkno wn	M	35	dirt	lateral	none	undergrou nd pipe	unknown	equipment operator	1711	
Fall from elevation	na	na	1-6'	no	yes	none	none	1	0	none	unkno wn	M	59	window	altering step ladder	building	repair	window work	1793		
Fall from elevation	na	na	1-6'	no	yes	none	none	1	0	none	unkno wn	M	40	window	altering casing	building	unknown	window casting installer	1793		
Fall from elevation	na	na	>6'	no	no	none	none	1	0	none	unkno wn	M	36,30	people	decking bolts,	scaffold	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6'	no	yes	none	welder	1	0	none	2:00 PM	M	30	none	none	ladder	building	construction	welder/cutter	1711	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	27	down devices	rooftie down	lateral	roof opening	new construction	unknown- steel company	1791	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	53	none	none	none	ladder	building	hvac mechanic	1711	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	66	none	none	roof openings	panel	new construction	unknown	1711	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	35	none	none	metal roof panel	lateral	building	unknown	1791	
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno wn	M	11-25	debris	steamb boiler	demolition	laborer	steamb boiler	1795		

Fall from elevation	na	na	>6' yes	yes	no	none	none	none	1	none	unkno	wn	M	26,43	none	none	seafold	water tank	unknown	unknown	1721	
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	1	0	unkno	wn	M	59	none	none	platform	unknown	unknown	unknown	1721	
Fall from elevation	na	na	>6' wn						1	0	unkno	wn	M	34	insulation and tape	lateral	none	building	unknown	insulator/steel worker?	1791	
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	1	0	unkno	wn	M	51	steel sheet	lateral	none	oil refinery	unknown	steel worker	1791	
Fall from elevation	na	na	>6' yes- impro	no	yes	none	none	none	1	0	unkno	wn	M	9,15	welding equipment	1	0	new	structural	new	structural	1791
Fall from elevation	na	na	>6' per per use	no	yes	none	none	none	1	0	unkno	wn	M	38	I-beams	none	none	building	construction	metal worker	1791	
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	1	0	unkno	wn	M	28	none	none	none	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	1,50	welding	roof	openings	new	warehouse	construction	welder	1791
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	1	0	unkno	wn	M	33	lead	lateral	none	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	20	none	none	none	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	37	steel brace	altering	none	building	unknown	steel worker	1791	
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	61	none	none	ladder,scaff	new	construction	mason	1741	
Fall from elevation	na	na	>6' no	yes	yes	none	none	none	1	0	unkno	wn	M	20	sheet rock	none	none	building	new	sheet rock	construction worker	1742
Fall from elevation	na	na	>6' no	no	no	none	none	none	1	0	unkno	wn	M	30	chicken wire	lateral	none	building	new	unknown-installing	construction steel?	1791
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	46	metal floor decking	lateral	none	building	new	demolition	steel worker	1791
Fall from elevation	na	na	>6' no	no	yes	none	none	none	1	0	unkno	wn	M	45	rooftop	altering	none	grain bin	demolition	cutter	1795	

Fall from elevation	na	na	yes- guard 1-6' fall	no	yes	none	none	1	0	none	unkno	wn	M	31	tape/drywall	altering	none	building	unknown	drywall	1742								
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	49	none	none	none	floor	opening	building	unknown	unknown	1742						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	60	none	none	none	scaffold	building	repair	painter	painter	1799						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	60	none	none	none	lateral	scaffold	et	supermark	new	1742						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	36	metal t-bar	altering	none	building	construction	drywall?	drywall	drywall?	1742						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	29	drywall	altering	none	building	unknown	drywall	drywall	drywall	1742						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	36	light pole	hoisting	none	unknown	demolition	electrician	masonry	masonry-bricks-	1742						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	40	wood	lateral	platform	working	platform	unknown	demolition	electrician	masonry	1799					
Fall from elevation	na	na	>6'	no	yes	none	none	1	1	none	unkno	wn	M	52	32	none	none	lateral	ladder	building	unknown	demolition	electrician	masonry	1743				
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	21	none	none	none	microwave	tower	demolition	carpenter?	carpenter?	1751						
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	33	none	none	none	communications	new	construction	inspector	demolisher	demolisher	1799					
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	51	oil	welding	lead	lateral	none	building	repair	elevator	elevator	1796					
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	48	lead	lateral	none	roof	opening	warehouse	demolition	demolition	demolisher	1795					
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	31	materials	hoisting	lead	powerplant	repair	powerplant	repair	boilermaker	boilermaker	1711					
Fall from elevation	na	na	>6'	no	yes	none	none	1	0	none	unkno	wn	M	45	oil	welding	lead	lateral	none	roof	opening	warehouse	demolition	demolition	demolisher	demolisher	borer	borer	1795

Fall from elevation	na	na	>6'	no	yes	no	none	none	none	0	1	none	AM	M	31	debris	lateral	none	building	demolition	laborer	1795
Fall from elevation	na	na	>6'	no	no	no	no	no	no	1	0	none	AM	M	47	none	none	none	building	unknown	sheetmetal duct installer	1711
Fall from elevation	no	na	>6'	yes-failed	no	no	no	no	dallas hoist	1	0	none	AM	M	31	elevator	hoisting	car/sling	building	repair	elevator repairer	1796
Fall from elevation	na	na	>6'	no	no	no	no	none	elevator project machine	1	0	none	AM	M	31	roofing material	altering	none	building	demolition	asbestos worker	1795
Fall from elevation	na	na	1.6'	no	yes	yes	none	none	power washer	1	0	none	PM	M	33	none	none	scaffold	building	unknown	washing ceiling	1799
Fall from elevation	na	na	>6'	no	no	no	yes	none	none	1	0	none	AM	M	36	rebar/roof trusses	altering	none	building	demolition	demolition	1795
Fall from elevation	na	na	>6'	no	no	no	no	none	crane	1	0	none	AM	M	58	stairway	altering	none	building	demolition	demolition	1795
Fall from elevation	na	na	>6'	no	no	no	yes	none	none	1	0	none	AM	M	37	rebar and concrete	altering	none	building	demolition	structural cutter	1795
Fall from elevation	na	na	>6'	no	yes	yes	none	none	project torch	1	0	none	AM	M	37	steel	lateral	opening	Building	new	metal construction workers	1629
Fall from elevation	na	na	>6'	no	no	no	yes	none	none	1	0	none	AM	M	27	none	none	scaffold	Clarifier Tank	unknown	plumber	1629
Fall from elevation	na	na	>6'	use	no	yes	yes	none	none	1	0	none	AM	M	36	metal	altering	none	building	unknown	unknown cutter	1795
Fall from elevation	na	na	>6'	use	no	yes	yes	none	none	1	0	none	AM	M	51	concrete	lateral	none	building	new	construction finisher	1771
Fall from elevation	na	na	>6'	no	no	yes	yes	none	none	1	0	none	AM	M	32	steel	none	none	building	new	concrete finisher	1795
Fall from ground level	na	na	na	na	na	yes	no	yes	none	0	1	wind	PM	M	26	steel columns	none	none	building	new	construction finisher	1791
Fall from ground level	na	na	na	na	yes	yes	no	no	pneumatic chipping hammer	2	0	none	AM	M	11:10	gas/vapors	none	none	channel	plumber/pipe fitter	1629	
Fire	na	yes	na	no	yes	yes	yes	none	none	na	na	na	AM	M	33:37	MM	none	none	none	none	none	1629

Fire	na	na	na	no	yes	no	bucket truck	project	none	0	1	none	AM	M	32	guy wire, bolts	lateral	none	power system	unknown	electrician	1623
Fire	na	na	na	no	no	no	bulldozer	project	hydraulic line	1	0	none	unkno	wn	57	hydraulic fluid	none	unknown	none	unknown	equipment operator	1611
Natural causes	na	na	na	na	na	no	none	none	none	1	0	none	PM	M	48	none	none	none	unknown	welder	1629	
Natural causes	na	na	na	na	na	no	none	none	none	1	0	heat	unkno	wn	22	roofing debris	lateral	none	building	unknown	roof laborer	1761
Natural causes	na	na	na	no	no	no	none	none	none	1	0	none	AM	M	50	none	none	none	unknown	unknown	unknown	1623
Natural causes	na	na	na	na	na	no	none	none	none	1	0	none	unkno	wn	59	none	none	none	unknown	unknown	unknown	1752
Natural causes	na	na	na	na	na	no	no	truck	project	none	1	0	none	wn	M	23	none	none	none	none	unknown	1623
Natural causes	na	na	na	na	na	no	no	none	none	1	0	none	unkno	wn	50	none	none	none	none	new	construction	1629
Natural causes	na	na	na	na	na	no	no	none	none	1	0	none	unkno	wn	55	none	none	none	none	lower	welder	1791
Natural causes	na	na	na	yes	>6'	no	no	none	none	1	0	none	unkno	wn	54	none	none	ladder	wall	unknown	unknown	1761
Natural causes	na	na	na	no	no	no	no	none	none	1	0	none	unkno	wn	52	none	none	none	house	unknown	sheetmetal duct installer	1711
Natural Causes	na	na	na	na	na	no	no	none	none	1	0	none	3:30	PM	39	none	none	none	house	unknown	carpenter	1521
Natural causes	na	na	na	na	na	no	no	none	none	1	0	heat	3:50	PM	20	none	none	none	water tower	unknown	ladder	1791
Natural causes	na	na	na	na	na	unk	no	no	none	1	0	none	8:50	AM	M	42	none	none	unknown	unknown	unknown	1761

Natural causes	na	na	>6'	no	no	none	none	none	none	0	none	wn	M	37	none	none	none	building	unknown	roofer	542	
Natural causes	na	na	na	na	no	none	none	none	none	1	0	none	wn	M	49	unknown	none	none	landscape	unknown	unknown-trimming brush	1742
Natural causes	na	na	na	na	no	none	none	none	none	1	0	none	wn	M	48	none	none	none	fence	repair	laborer	1542
Natural causes	na	na	na	na	no	none	none	none	none	1	0	none	wn	M	51	none	none	none	unknown	unknown	owner	1542
Natural causes	na	na	na	na	no	none	none	none	none	1	0	none	wn	M	51	none	none	none	unknown	unknown	owner	1542
Natural causes	na	na	na	na	yes	no	loader	project	none	1	0	none	wn	M	51	none	none	none	sewer system	new construction	equipment operator	629
Natural causes	na	na	10'	no	yes	no	backhoe	project	none	1	0	none	PM	M	52	none	none	trench	new construction	steel worker?	1623	
Natural causes	na	na	>6'	no	no	no	none	none	none	1	0	none	AM	M	41	bolts	lateral	stepladder	steel structure	new construction	steel worker?	1791
Natural causes	na	na	na	na	no	no	none	none	none	1	0	none	PM	M	58	none	none	none	none	unknown	unknown	1623
Natural causes	na	na	na	na	no	no	none	none	none	1	0	none	wn	M	38	none	none	none	none	unknown	unknown	1629
Natural causes	na	na	na	na	no	no	none	none	none	1	0	none	wn	M	38	none	none	none	none	unknown	unknown	1629
Natural causes	na	na	na	na	no	no	none	none	none	1	0	heat	PM	M	54	none	none	none	scaffold	building	new construction	mason
Natural causes	na	na	na	na	no	no	none	none	none	1	0	heat	PM	M	63	none	none	none	none	unknown	unknown	1741
Natural causes	na	na	na	na	no	no	none	none	none	1	0	heat	PM	M	39	none	none	none	none	unknown	unknown	1629
Natural causes	na	na	na	na	no	no	none	none	none	1	0	heat	PM	M	39	none	none	none	none	unknown	unknown	1741
Natural causes	na	na	na	na	no	no	none	none	none	1	0	none	PM	M	62	none	none	none	house	new construction	electrical	1731
Natural causes	na	yes	na	na	na	no	no	none	none	1	0	none	cutting torch	M	32	none	none	none	culvert	repair	welder/cutter	1629

Struck by equipment	na	na	16	na	no	boring machine	project	none	1	0	none	unkno wn	M	57	none	none	new construction	equipment operator-driller	1794		
Struck by equipment	no	na	na	na	yes	no	drill	project	pipe wrench	1	0	none	unkno wn	M	23	none	none	equipment mechanic	1623		
Struck by equipment	na	na	na	na	yes	no	backhoe	project	none	1	0	none	unkno wn	M	35	none	none	plumber/pipe fitter	1794		
Struck by equipment	na	na	na	na	yes	yes	scraper	project	none	1	0	none	unkno wn	M	37	none	none	new construction operator	1611		
Struck by equipment	na	na	na	na	no	yes	scraper	project	none	1	0	none	unkno wn	M	57	none	none	equipment mechanic	1611		
Struck by equipment	na	na	na	na	yes	no	loader	project	none	1	0	none	unkno wn	M	25	none	none	new construction	laborer	1794	
Struck by equipment	na	na	na	na	yes	no	scraper	project	eye level	1	0	none	unkno wn	M	49	none	none	passenger on roller	1611		
Struck by equipment	na	na	na	na	yes	no	scraper	project	eye level	1	0	none	unkno wn	M	61	rock	lateral	new construction	laborer	1794	
Struck by equipment	na	na	na	na	yes	no	roller	compact	project	none	1	0	none	unkno wn	M	25	none	roadway	new	1611	
Struck by equipment	na	na	na	na	yes	no	scraper	project	none	1	0	none	unkno wn	M	2:10	none	none	roadway	new	1611	
Struck by equipment	na	na	na	na	yes	no	scraper	project	none	1	0	none	unkno wn	M	51	none	none	roadway	new	1611	
Struck by equipment	na	na	na	na	yes	no	scraper	project	none	1	0	none	unkno wn	M	41	concrete	lateral	new construction	laborer	1794	
Struck by equipment	na	na	4	na	yes	no	scraper	project	none	1	0	none	unkno wn	M	55	dirt	lateral	plumber/pipe fitter	1794		
Struck by equipment	na	na	na	na	yes	yes	scraper	project	none	1	0	none	unkno wn	M	39	elevator	none	drainage pipe repair	1611		
Struck by equipment	na	na	na	na	yes	yes	scraper	project	none	1	0	none	unkno wn	M	44	none	none	new construction	laborer	1611	
Struck by equipment	no	na	na	na	yes	no	scraper	project	none	1	0	none	unkno wn	M	44	none	none	new construction	laborer	1611	
Struck by equipment	no	na	na	na	yes	yes	scraper	project	none	1	0	none	unkno wn	M	44	none	none	new construction	laborer	1623	
Struck by equipment	na	na	na	na	yes	yes	scraper	project	none	1	0	none	unkno wn	M	46	earth	lateral	water main	new construction	laborer	1623

Struck by equipment	na	na	na	na	yes	yes	asphalt truck	project none	1	0	none	unkno wn	M 43	blueprints	none	none	unknown	unknown	unknown	1611
Struck by equipment	na	na	na	na	yes	yes	tractor-trailer	unknown	1	0	none	unkno wn	M 67	none	none	none	pipe system	repair	flagger	1611
Struck by equipment	na	na	na	na	yes	no	or, two pickup trucks	project none	2	0	none	unkno wn	M 30.31	none	none	none	highway	unknown	concrete finishers	1622
Struck by equipment	na	na	na	na	yes	no	front end loader	project none				unkno wn	M 57	pipe lateral	none	unknown	unknown	unknown	unknown	1623
Struck by equipment	na	na	na	na	yes	yes	unknown loader	project none	1	0	none	unkno wn	M 62	none	none	none	gas station	unknown	filling gas tank?	1799
Struck by equipment	na	na	na	na	yes	no	vehicle private	none	1	0	none	unkno wn	M 57	none	none	none	roadway	unknown	flagger	1611
Struck by equipment	na	na	na	na	yes	yes	vehicle private	none				unkno wn	M 33	dirt lateral	none	none	none	unknown	unknown-backed over	1611
Struck by equipment	na	na	na	na	yes	no	dumptruck	project none	1	0	none	unkno wn	M 23	none	none	none	roadway	repair	equipment operator	1611
Struck by equipment	na	na	na	na	yes	no	flatbed truck	project none	1	0	none	unkno wn	M 17	none	none	none	roadway	repair	traffic controller	1611
Struck by equipment	na	na	na	na	no	yes	semitruck	private none	1	0	none	unkno wn	M 42	traffic controls	lateral	none	roadway	repair	grader	1611
Struck by equipment	na	na	na	na	yes	no	dumptruck	project handgrader	1	0	none	unkno wn	M 35	none	none	none	roadway	unknown	unknown	1611
Struck by equipment	na	na	na	na	no	yes	asphalt truck	project none	1	0	none	unkno wn	M 37	none	none	none	roadway	unknown	haul operations	1629
Struck by equipment	na	na	na	na	no	yes	wire rope choker	project header	1	0	none	unkno wn	M 31	traffic controls	lateral	none	highway	repair	traffic controller	1611
Struck by equipment	na	na	na	na	yes	yes	semi truck	private none	1	0	none	unkno wn	M 40	vegetation lateral	none	highway	unknown	laborer	1629	

Struck by equipment	na	na	na	na	yes	no	dumptruck	project	none	1	0	unkno	wn	M	30	none	none	none	unknown	unknown	electrical	1742		
Struck by equipment	na	na	na	na	yes	no	backhoe	project	none	1	0	none	PM	M	40	none	none	trench	none	unknown	nd	electrical	1623	
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	2	none	wn	M	53	none	none	highway	repair	traffic	controllers	1611		
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	0	none	wn	M	60	none	none	bridge	unknown	bridge tender	1611			
Struck by equipment	na	na	na	na	yes	no	dozer	project	rebar	1	0	none	wn	M	37	none	none	none	none	unknown	equipment operator	1611		
Struck by equipment	na	na	na	na	yes	no	crane	project	shackle/lines	1	0	none	wn	M	37	none	none	barge	none	unknown	spotter	1629		
Struck by equipment	na	na	na	na	yes	no	backhoe	project	none	1	0	none	AM	M	42	pvc piping	lateral	trench	none	new	construction	plumber/pipe fitter	1629	
Struck by equipment	na	na	na	na	yes	no	wooden	equi	ment	1	0	none	wn	M	46	none	none	roadway	unknown	roadway	paving worker	1611		
Struck by equipment	na	na	na	na	yes	yes	forklift	project	none	1	0	none	PM	M	19	none	none	none	none	unknown	metal worker	1541		
Struck by equipment	na	na	na	na	yes	yes	air	compressor	1	2	none	wn	M	47,7,7	debris	lateral	none	none	bridge	unknown	bridge decking installers	1611		
Struck by equipment	na	na	na	na	yes	no	tractor-trailer	private	project	1	0	none	wn	M	39	rock	lateral	none	none	roadway	repair	equipment operator	1611	
Struck by equipment	na	na	na	na	yes	no	dumptruck	project	none	1	0	none	wn	M	43	none	none	lateral	none	none	roadway	unknown	equipment operator	1796
Struck by equipment	na	na	na	na	yes	no	sweeper	project	none	1	0	none	wn	M	45	none	none	none	none	none	house	spotter	1711	
Struck by equipment	na	na	na	na	yes	no	crane	project	none	1	0	none	wn	M	40	none	none	none	none	none	hospital	engineering technician	1711	

Struck by equipment	na	na	na	yes	no	scraper	project	none	1	0	none	AM	M	22	window	lateral	none	housing complex	new construction	grade checker	1629	
Struck by equipment	na	na	na	yes	no	aerial lift	project	none	1	0	none	unkno	M	17	none	none	building	aircraft	maintenan	floor man	operating	1721
Struck by equipment	na	na	na	yes	no	platform	project	none	1	0	none	unkno	M	38	none	none	ice stand	under	platform	operating	aerial lift	1721
Struck by equipment	na	na	na	yes	no	automat	ed work	project	none	1	0	none	unkno	M	38	none	none	new construction	under	platform	when failed	1791
Struck by equipment	na	na	na	yes	no	platform	project	none	1	0	none	unkno	M	35	asphalt	lateral	none	highway	repair	trade	1611	
Struck by equipment	na	na	na	yes	no	dump truck	project	none	1	0	none	unkno	M	50	none	none	roadway	new	construction	flagger	1622	
Struck by equipment	na	na	na	yes	no	dumptru	project	none	1	0	none	unkno	F	50	none	none	roadway	new	construction	flagger	1622	
Struck by equipment	na	na	na	yes	no	crane	project	bucket	1	0	none	unkno	M	55	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	no	dumptru	project	none	1	0	none	5:00	AM	36	none	none	roadway	unknown	roadway	flagger	1622	
Struck by equipment	na	na	na	yes	no	truck	project	none	1	0	none	unkno	M	20	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	yes	truck; p/up	project	none	1	0	none	1:05	PM	20	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	yes	truck	project	none	1	0	none	unkno	M	54	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	no	truck	project	none	1	0	none	unkno	M	53	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	no	truck	project	none	1	0	none	unkno	M	53	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	no	vehicle	private	none	1	0	none	unkno	M	50	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	no	head oilfield	project	none	1	0	none	unkno	M	46	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	no	na	na	no	yes	yes	head oilfield	project	none	1	0	none	unkno	M	210	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	yes	truck, pickup truck	project	none	1	1	none	unkno	M	22,28	none	none	bridge	demolition	demolisher	1622		
Struck by equipment	na	na	na	yes	yes	truck	project	none	1	1	none	unkno	M	40	soil cement	lateral	none	bridge	demolition	demolisher	1622	

Struck by equipment	na	na	>6'	no	yes	no	truck; bucket truck	private; project	none	1	0	none	4:35 P.M.	M	41	light bulbs	altering; none	roadway traffic signals	repair	electrical-traffic	1731		
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	0	none	unkno	M	48	traffic controls	none	roadway	unknown	laborer	1622		
Struck by equipment	na	na	na	na	yes	no	material hoist	private	none	1	0	none	unkno	M	42	none	none	unknown	unknown	unknown	1771		
Struck by equipment	na	na	na	na	yes	no	crane	private	none	1	0	none	unkno	M	49	pole	hoisting	none	none	(SIC 1731- electrical)	1731		
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	0	none	unkno	F	52	none	none	roadway	unknown	flagger	1611		
Struck by equipment	na	na	na	na	yes	yes	no	dumptruck	project	none	1	0	none	unkno	M	24	none	none	roadway	unknown	construction laborer	1611	
Struck by equipment	na	na	na	na	yes	yes	no	grader	project	marker	1	0	none	unkno	M	50	earth	lateral	none	unknown	surveyor	611	
Struck by equipment	na	na	na	na	yes	yes	no	vehicle	private	none	1	0	none	8:30 A.M.	M	41	wood	none	none	new construction	unknown	1611	
Struck by equipment	na	na	na	na	yes	yes	no	crane	project	none	1	0	none	10:45 A.M.	M	24	gravel	hoisting	none	interstate	unknown	laborer	1771
Struck by equipment	na	na	na	na	yes	yes	no	backhoe	project	none	1	0	none	unkno	M	39	rock	hoisting	none	none	unloading/loading rocks	into bucket	741
Struck by equipment	na	na	na	na	yes	yes	no	company vehicle	private	project	1	0	none	unkno	M	27	none	none	highway	unknown	site-electrician by trade	1731	
Struck by equipment	na	na	na	na	yes	yes	no	dumptruck	project	none	1	0	none	9:35 A.M.	M	40	asphalt	lateral	none	roadway	repair	asphalt worker	1611
Struck by equipment	na	na	na	na	yes	yes	no	dumptruck	project	none	1	0	none	2:20 A.M.	M	50	none	none	none	roadway	repair	laborer	1622
Struck by equipment	na	na	na	na	yes	yes	yes	wood chipper	project	chipper	1	0	none	4:30 P.M.	M	34	none	none	none	unknown	operator	1795	

Struck by equipment	na	na	na	na	yes	no	backhoe	project	coring	1	0	none	unkno	M	43	none	none	excavation	unknown	unknown	unknown	1623		
Struck by equipment	na	na	na	na	no	yes	none	grinder	1	0	none	unkno	M	30	grinding	none	none	pipe	system	unknown	grinder	1799		
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	2	none	PM	M	26	none	none	traffic	control	roadway	unknown	sod installers	1629	
Struck by equipment	na	na	na	na	yes	no	trash	compact	project	none	1	0	none	unkno	M	31	garbage	lateral	none	none	garbage	1611		
Struck by equipment	na	na	na	na	yes	no	tractor	trailer	unknown	1	0	none	unkno	M	33	traffic	controls	lateral	none	bridge	unknown	traffic controller	1611	
Struck by equipment	na	na	na	na	yes	no	crane	project	none	1	0	none	unkno	M	20	metal roof	decking	hoisting	none	building	new	rigging load	1791	
Struck by equipment	na	na	na	na	yes	no	unknown	vehicle	private	none	1	0	none	unkno	M	39	none	none	traffic	control	roadway	unknown	drill/boring machine operator	1611
Struck by equipment	na	na	na	na	yes	no	vehicle	private	none	1	0	none	unkno	M	38	none	none	none	highway	construction	new	flagger	1611	
Struck by equipment	na	na	na	na	yes	no	roller	compact	project	sump pump	1	0	none	unkno	M	43	none	none	none	highway	construction	new	flagger	1611
Struck by equipment	na	na	na	na	yes	no	semitractor	trailer	private	none	1	0	none	unkno	M	47	concrete	altering	controls	highway	repair	concrete cutter	1611	
Struck by equipment	na	na	na	na	yes	no	truck	project	none	1	0	none	unkno	M	17	none	none	none	none	unknown	unknown	flagger	1622	
Struck by equipment	na	na	na	na	yes	yes	truck	project	none	1	0	none	unkno	M	38	none	none	none	none	dump	unknown	unknown	1799	
Struck by equipment	na	na	na	na	yes	no	trash	city	owned	none	1	0	none	unkno	M	23	concrete	lateral	crane	cribbing/foaming for	concrete retaining wall	repair	spotter	1629
Struck by equipment	na	na	na	na	yes	no	crane	project	none	1	0	none	unkno	M	52	none	none	none	none	light rail	new	construction	flagger	1542

Struck by equipment	na	na	na	na	yes	no	dumptruck	project	none	1	0	1:25	M	58	unknown	lateral	none	unknown	unknown	unknown	equipment operator	1629	
Struck by equipment	na	na	na	na	yes	no	dump truck	project	none	1	0	10:00	M	51	unknown	lateral	none	unknown	new construction	spotter	new	1629	
Struck by equipment	na	na	na	na	yes	no	truck	private	none	1	0	none	unkno	M	19	traffic cone	lateral	none	traffic signal	light	repair	electrical	1731
Struck by equipment	na	na	na	na	yes	no	scissor lift	project	none	1	0	none	unkno	M	28	conduit	lateral	none	unknown	unknown	unknown	electrical	1731
Struck by equipment	na	na	na	na	yes	no	gradipli dozer	project	none	1	0	none	12:30	M	20	debris	lateral	none	unknown	unknown	unknown	equipment operator	1629
Struck by equipment	na	na	na	na	yes	no	vehicle	public	none	1	0	none	unkno	M	52	sealer for pavement	lateral	none	traffic signal	main	new	traffic control	1731
Struck by equipment	na	na	na	na	yes	no	backhoe	project	none	1	0	none	unkno	M	27	pipe	hoisting	excavation	water	unknown	electrical	ctr-electrical?	1731
Struck by equipment	na	na	na	na	yes	no	pickup truck	private	none	1	0	none	11:15	M	19	none	none	trench	unknown	unknown	main	glazier	1542
Struck by equipment	na	na	na	na	yes	no	drilling machine	project	none	1	0	none	unkno	M	52	none	none	highway	highway	unknown	unknown	flagger driller/equip	1611
Struck by falling Material	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M	60	tree	none	none	none	none	new construction	operator	1799
Struck by falling Material	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M	33	ammonia nitrate, rock	none	protective magazine	none	new construction	blaster	explosive	1611
Struck by falling Material	na	na	na	na	yes	no	none	none	none	0	2	ice	unkno	M	25-34	none	ladder and platform	power generation	new construction	new	structural workers	metal	542
Struck by falling Material	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M	45	steel rebar	none	scaffold	building	unknown	riding	seafold up to 18 floor	1741
Struck by falling Material	na	na	na	na	yes	no	snorkel boom	project	none	1	0	none	7:30	M	28	concrete	hoisting	formwork	block wall	construction	new	carpenter working on formwork	1741

Struck by falling Material	na	na	na	na	yes	no	crane	project hammer	1	0	none	11:00	AM	M	23	sheet piling	hoisting	none	unknown	new construction	pile driving operations/cr ane ops	1542	
Struck by falling Material	na	na	na	na	yes	no	none	none	1	0	rain	unkno	cinder blocks	unkno	wn	unkno	wind, rain	unkno	cinder blocks	new construction	cinder block wall	operator	542
Struck by falling Material	na	na	na	na	yes	no	flabbed truck, crane	project slings	1	0	none	unkno	concrete pilings	unkno	wn	unkno	hoisting	none	unkno	new construction	construction	operator	1629
Struck by falling Material	na	na	na	na	yes	no	none	none	0	1	none	unkno	wood	unkno	wn	unkno	none	none	house	new construction	carpenter	1751	
Struck by falling Material	na	na	na	na	yes	no	none	none	0	1	none	unkno	wood	unkno	wn	unkno	none	none	building	construction	unknown	1751	
Struck by falling Material	na	na	na	na	yes	no	none	none	1	0	none	unkno	concrete	unkno	wn	unkno	none	none	wall braces	new construction	plumber/pipe fitter	711	
Struck by falling Material	na	na	na	na	no	no	none	none	1	0	wind	unkno	masonry wall	unkno	wn	unkno	none	none	wall	new construction	clearing/grub hinge new site	629	
Struck by falling Material	na	na	na	na	no	no	none	none	1	0	wind	unkno	wood	unkno	wn	unkno	none	none	trees	altering	none	dam	1752
Struck by falling Material	na	na	na	na	yes	no	none	chainsaw	1	0	none	unkno	M	20	wn	M	29.2	M, 29.2	new construction	construction	steel worker	791	
Struck by falling Material	na	na	na	na	yes	no	none	none	1	5	none	unkno	M	23	wn	M	5.35,	M, M 5.35,	new construction	construction	steel worker	791	
Struck by falling Material	na	na	na	na	no	yes	none	tractor- trailer	project safety chain	1	0	none	unkno	wn	M	52	precast concrete	lateral	none	building	truck driver- equipment operator	1752	
Struck by falling Material	na	na	na	na	no	no	none	none	1	0	none	unkno	M	12.15	wn	M	36.36	M, M 36.36	new construction	steel structure	steel workers	1791	
Struck by falling Material	na	na	na	na	yes	no	none	none	1	3	wind	unkno	M	15	wn	M	25.2	M, M 25.2	new construction	steel structure	steel workers	1791	
Struck by falling Material	na	na	na	na	yes	yes	none	none	1	1	none	unkno	M	37.31	wn	M	6	M, M 6	new construction	stairway	contractor?	761	
Struck by falling Material	na	na	na	na	yes	no	none	hoisting equipm ent	1	0	none	unkno	steel bar joints	unkno	wn	M	31	unkno	building	building	roofing	1791	
Struck by falling Material	na	na	na	na	yes	yes	none	nylon slings	1	0	none	unkno	hoisting	unkno	wn	M	60	none	none	temp steel storage	steel worker?	1791	
Struck by falling Material	na	na	na	na	no	yes	none	none	1	0	none	unkno	building	unkno	wn	M	60	none	none	door	unknown	unknown	1622

Struck by falling Material	na	na	na	na	yes	no	none	bulldozer	1	1	none	unkno	wn	M/M	43.22	concrete	garage basement	new construction	concrete finishers	1771				
Struck by falling Material	na	na	na	na	no	yes	crane	project	none	1	0	none	unkno	wn	M	24	units	lateral sound barrier	none	demolition	laborer	1611		
Struck by falling Material	na	na	na	na	yes	no	crane	project	none	1	0	none	unkno	wn	M	48	heat exchanger	hoisting	none	building	unknown	spotter	1711	
Struck by falling Material	na	na	na	na	no	yes	excavator	project	none	1	0	none	unkno	wn	M	23	soil	lateral wall panel	concrete	parking garage	repair	equipment operator	1771	
Struck by falling Material	na	na	na	na	no	yes	forklift	project	none	1	0	none	unkno	wn	M	24	pole	none	none	none	unknown	laborer	1771	
Struck by falling Material	no	na	na	na	yes	no	none	none	none	1	0	none	unkno	wn	M	23	sand	none	none	bin	unknown	unknown	1611	
Struck by falling Material	na	na	na	na	no	no	none	none	none	1	0	none	4.45	wn	M	41	wood	none	none	building	unknown	new construction	carpenter	1751
Struck by falling Material	na	na	na	na	no	no	none	none	none	1	0	none	11.00	AM	M	33	wood	altering	none	none	new construction	clearing site	clearing site	1629
Struck by falling Material	na	na	na	na	yes	no	forklift	project	slimes	1	0	none	2.35	PM	M	55	2 ton oven	lateral	none	unknown	unknown	directing lift	1796	
Struck by falling Material	na	na	na	na	no	no	none	none	none	1	0	none	10.10	AM	M	59	member	hoisting	platform	asphalt storage	demolition	operator- demolisher	796	
Struck by falling Material	na	na	na	na	yes	no	crane	project	none	1	0	none	unkno	wn	M	41	electrical control panel	none	building	demolition	fire watch for cutter	1796		
Struck by falling Material	na	na	na	na	yes	no	none	none	torch	1	0	none	welding	wn	M	24	welding machine and leads	none	building	repair	elevator repairer	1796		
Struck by falling Material	na	na	na	na	no	yes	elevator	project	machine	1	0	none	unkno	wn	M	62	pipe	lateral	none	none	unknown	laborer	1623	
Struck by falling Material	na	na	na	na	yes	no	none	none	none	1	1	none	unkno	wn	M/M	45.43	debris	none	building	demolition	demolisher	1531		

Struck by falling Material	na	na	na	na	no	none	none	none	none	1	0	none	unkno wn	45	wreckage	none	none	water pumping station	unknown demolition	unknown demolisher	1795	
Struck by falling Material	na	na	unk no	wn	no	yes	no	chain hoist	project hoisting	1	0	none	PM	25	ac unit	hoisting	none	building	unknown	spotter	1711	
Struck by falling Material	na	na	na	na	no	yes	none	none	torch	1	0	none	unkno wn	46	steel pipe	altering	none	unknown	demolition cutter	1795		
Struck by falling Material	na	na	na	na	yes	no	none	none	project	1	0	none	unkno wn	34	concrete beam	hoisting	none	building	new construction	carpenter	1542	
Struck by falling Material	na	na	na	na	yes	no	none	none	wooden beams	1	1	wind	unkno wn	22,?	wooden beams	none	none	railroad trestle	demolition	demolisher	1795	
Struck by falling Material	na	na	na	na	yes	no	none	none	project	1	0	wind	unkno wn	29	concrete	none	none	building	construction	carpenter	1541	
Struck by falling Material	na	na	na	na	no	no	none	none	project	1	0	wind	unkno wn	42	steel beam	none	none	unknown	unknown	cleanup	1795	
Struck by falling Material	na	na	na	na	no	no	none	none	project	1	0	none	unkno wn	69	tie beam	none	none	building	demolition	unknown	1795	
Struck by falling Material	na	na	na	na	yes	no	none	none	chain saw	1	0	none	unkno wn	39	shelter	none	none	block walls	new construction	unknown	1795	
Struck by falling Material	na	na	na	na	yes	no	none	none	project	1	0	none	unkno wn	30	steel column	hoisting	none	house	new construction	carpenter	1541	
Struck by falling Material	na	na	na	na	yes	yes	no	none	project	1	0	none	PM	45	tree	altering	none	unknown	unknown	cutting trees	1794	
Struck by falling Material	na	na	na	na	no	yes	none	none	PM	1	0	none	unkno wn	29	debris	none	none	building	demolition	demolisher/borer	1795	
Struck by falling Material	na	na	na	na	no	no	none	none	PM	1	0	none	unkno wn	56	trees	altering	none	none	unknown	unknown	directing equipment operations	1629
Struck by falling Material	na	na	na	na	yes	no	none	none	PM	1	0	none	unkno wn	50	wood	none	none	new	construction	unknown	1542	

Struck by falling material	na	na	na	na	na	yes	no	none	none	none	1	2	none	10:40 AM	M 31	debris	lateral	none	building	demolition	laborers	1795		
Struck by falling material	na	na	na	na	wn	na	yes	none	none	none	1	0	none	unkno	M 62	sand/water/cement mixture	cantilever brace	building	unknown	unknown	unknown-excavator	1794		
Struck by falling material	na	na	na	na	na	yes	no	none	none	loader lift, semi-project	1	0	none	unkno	M 45	pipe	lateral	none	none	unknown	unknown	1623		
Struck by material	na	na	na	na	na	yes	yes	none	boring machine-project	wrench	1	0	none	unkno	M 32	none	none	none	none	unknown	laborer	1623		
Struck by material	na	na	na	na	na	no	yes	none	none	none	1	0	none	unkno	M 35	rubber bladder/plug	none	none	none	electric power plant	unknown	unknown	1796	
Struck by material	na	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M 49	steel beam	lateral	none	building	new construction	steel worker	1791		
Struck by material	na	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M 46	concrete	lateral	none	bridge	new	construction	concrete unloading	1791	
Struck by material	na	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M 25	turning bar	none	none	none	none	unknown	construction	pallets	1771
Struck by Material	na	na	na	na	na	yes	no	none	none	backhoe project	turning bar	1	0	none	unkno	M 22	tire	altering	none	none	none	unknown	Mechanic	1521
Struck by Material	na	na	na	na	na	no	yes	none	none	forklift project	compressor	1	0	none	unkno	M 48	lumber	lateral	scaffold	building	new	construction	Equipment operator	1522
Struck by material	na	na	na	na	na	yes	yes	none	none	none	1	0	none	unkno	M 59	personnel basket and block	hoisting	none	none	none	unknown	demolition	carpenter foreman for cutting operation	1795
Struck by material	na	na	na	na	na	yes	no	none	none	none	1	0	none	unkno	M 33	canister body	none	none	none	none	unknown	unknown	truck driver	1799
Struck by material	na	na	na	na	na	yes	yes	none	none	pile driver	project	1	0	none	unkno	M 44	pile	hoisting	none	none	unknown	unknown	spotter	1629
Struck by material	na	na	na	na	na	yes	no	yes	none	improper use	no	1	0	none	unkno	M 39	sign panels	lateral	catwalk	advertisin	g sign	unknown	unknown	1721

Struck by material	na	na	na	na	na	na	yes	no	crane	project	none	1	0	none	3-50	M	48	roof sections/brick wall	hoisting	none	building	demolition	demolisher	1795	
Struck by material	na	na	na	na	na	na	yes	no	forklift	project	none	1	0	none	unkno	wn	M	39	steel column	lateral	none	building	unknown	removing column from structure	1791
Struck by material	na	na	na	na	na	na	yes	no	none	none	tire inflator	1	0	none	unkno	wn	M	27	tire	altering	none	unknown	unknown	concrete finisher	1771